G F Bowman 3 copies
cor Pearl & Detroit sts
Cleveland O

THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

VOL. VIII. NO. 42. CLEVELAND. O., OCTOBER 21, 1886. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND.

Captain George Stevens has been made master of the tug L. P. Smith.

Commodore Geo. Gardner attended the yacht race at Toledo last Thursday.

Mr. J. C. Gilchrist has sold the schooner Havana to Captain A. P. Reed, of Kenosha, Wis., the consideration being $7,300.

Up to the hour of going to press no tidings have come to hand regarding the Belle Mitchell, which was on Lake Erie during the big gale of last week. She is the only vessel now missing. It is to be hoped that her crew are safe in some harbor, although there is not much ground for the belief.

Freights were firm to day at $1.80, $2, and $2.60 for ore from Escanaba, Marquette, and Ashland, respectively, and $1 for coal to most Lake Michigan or Lake Superior ports except Marquette. For the latter port the schooners George Sherman and C. H. Johnson were placed at 75c. These were the only charters closed and in shape to report. Partially completed engagements include the propeller Raleigh and consorts Niagara and Lucerne. Two of the tow will take coal from Sandusky to Ashland at $1.

The speed test of the fire boat took place on Monday, Messrs. Wm. Cowles the architect, and J. J. Kunstadter the inventor of the patent screw steering and propelling wheel, Mayor Gardner, the fire commissioners and Chief Dickson being aboard. The boat was maneuvered in backing and turning, and the fire commissioners and visitors were surprised at the ease with which she was handled. A test on Sunday showed that she could be turned completely around from a dead stop, in one minute and fifteen seconds in a water space of 90 feet, which is but a trifle more than her length, and that while going at full speed she made nine circles in one minute twenty-nine seconds each, from starboard to port and from port to starboard, after which she was run up the river and grounded in about a foot of mud and by the use of the Kunstadter screw released herself without assistance, a feat hard to perform, which demonstrates the immense power of this swiveling screw. The boat was run quite a distance ahead and astern quite rapidly and winded around the narrow bends in the river and slips, all of which pleased the commissioners, who expressed themselves as being highly pleased with the Kunstadter patent screw, and thought it just the wheel to enable a boat to avoid collisions in crowded channels, inasmuch as it enabled the boat to change her course so readily. All the trials were made without the slightest hitch, and it was evident that the speed was considerably increased by the use of the Kunstadter screw, turning in unbroken water outside of the rudder. The boat was guaranteed to develop a speed of nine miles an hour, but in the test to Rocky River and back she logged off eleven miles. The tests of her water throwing capacities were equally satisfactory. The pumps are, steam 16x10 inches and water 8x10 inches. The first trial was made through ten links of hose 100 feet each, the water being thrown through four 1⅛-inch and six 1-inch nozzles a distance of 200 feet, then two 2-inch nozzles were put on and the streams thrown 200 feet, then two 2-inch pipes 240 feet, three 2-inch pipes 250 feet, three 2½-inch pipes 210 feet, through one 3-inch pipe 240 feet, through one 3¼-inch pipe 275 feet, all of which delighted Chief Dickson. The boat is a credit to Messrs. Stovering & Fleming, the contractors, Murphy & Root, the builders of the hull, Mr. Manning, who furnished the pumps, Mr. Wm. Cowles, the architect, and Mr. J. J. Kunstadter, the inventor of the screw steering and propelling wheel. During all her tests the boat has been handled by Captain Joseph Gorman, who will probably be appointed master, while Mr. Ordner presided over the machinery.

CHICAGO.

Special to the Marine Record.

The schooner Conquest, Captain W. H. McDonald, arrived Friday morning with cobble stones from Point Iroquois, Lake Superior. She was caught in the heavy gale of Thursday last, when about twenty-five miles out in Lake Michigan, E.N.E. of Milwaukee, which split her mainsail and jibs and broke off her bowsprit and one chain plate from her foremast. She was rendered almost unmanageable, labored very heavily and the great waves broke completely over her. Her deck load was thrown overboard to save her from foundering. She was then hauled in for the west shore and fetched the vicinity of Grosse Point, when she made better weather and came along to Chicago. Captain McDonald says it was the toughest time he ever experienced, and but for the coolness and courage of his excellent crew the vessel would never have reached port.

The schooner Manzanilla, Captain E. W. Corey, arrived Friday afternoon, with cedar ties from Trenton, Ontario. Captain Corey says they had light southerly winds when coming up Lake Michigan, until Thursday noon, when off Sheboygan, Wis., the wind suddenly shifted around to the west and blew very heavily, throwing the vessel on her beam's end. All her head canvas was taken in as soon as possible and she was hove to under her mainsail and mizzen. The sea at this time was running very high from the southeast, which caused the schooner to roll tremendously. The gale increased, and the topsail which had been clewed up was blown out of the clewings, and two jibs which were hauled down were blown away. Captain Corey has sailed twenty-one years and never remembers it blowing harder, and does not wish for another experience of the kind.

At the Chicago Drydock Company's yards the schooners Barbarian, Norman and Belle Brown were in dock for calking; the steambarge Rhoda Emily for repairs to her keel and bottom; the steambarge A. E. Wilds for a new stem; the schooner Champion for a new piece of keel; the propeller Argonaut had her decks calked; the schooner Hattie Earl received a new foremast; the schooner John Raber a new jibboom; the schooner Ellen Spry received some calking; the schooner Pensaukee a new cathead and dolphin striker; the schooner Lizzie A. Law some calking; schooner Adirondac had her center board box calked.

At Miller Brothers' Drydocks the tugs Commodore, Crawford and Prindiville were each in dock for a new wheel; the schooner Ostrich to have a leak stopped; the schooner D. G. Fort had her bottom calked; the steambarge Gordon Campbell, tug Welcome and schooner Orkney Lass had leaks stopped; the schooner Cape Horn had her stem and stern fixed; the propeller John Pridgeon, Jr., received a new stem and some new bulwarks forward; the tugs McCormack and Pearl were at the derrick and had stern bearings fixed.

The schooner George M. Case, which went to the bottom of Lake Erie Thursday with three of her crew, left Chicago on the 8th inst. Her cargo consisted of 24,000 bushels of corn, shipped by Watkins & Mueller. Captain William Daily, who lost his life, was a resident of Chicago, and leaves a wife and four children. His wife is an invalid. Captain Daily has sailed the lakes for many years, and was at one time on the Chicago police force. This was his second trip on the Case. During the greater part of the present season he sailed as mate of the schooner E. A. Nicholson, and left that boat several weeks ago to relieve Captain McDonald of the command of the Case, Captain McDonald having been compelled to remain ashore on account of sickness. It was Captain McDonald's intention to rejoin his vessel at Buffalo, and he was preparing to start for that port by rail when he received word that the schooner was lost. Maggie Kreiger, the cook, had been in the Case for three seasons, and was about 50 years of age. Her home was in Detroit. She leaves a daughter, who resides somewhere in Canada. Ole Greene was well known among sailors. He was not married

The schooner Live Oak was sold at United States marshall sale Wednesday morning to Charles A. Sirbom for $2075. She will be fitted out at once and Captain Alfred Smith will sail her on her first trip, then Captain A. Smith, who is now sailing the schooner L. M. Mason, will command her.

Vessel owners were greatly excited when they learned that the premium notes given by the defunct Anglo-American Insurance Company had been sent to a Chicago bank for collection. The notes were presented for payment, but after consulting with an attorney, it was decided to contest judgment, and fight the holders of the notes in the courts. About $40,000 is involved in policies, having been written by the company on almost the entire Lake Michigan lumber feet.

The propeller John Pridgeon Jr., Captain D. H. Sherwood arrived at this port Friday from Ogdensburg with merchandise, her stem was badly damaged and some of the green paint from the propeller Selah Chamberlain, which she was in collision with the previous Wednesday night off Sheboygan and sunk, was still to be seen on her bows. Captain Greenley, master of the sunken steamer, arrived here from Sheboygan Saturday and was met by Mr. H. D. Goulder of Cleveland, attorney for the owners of the Chamberlain. After a long consultation it was decided to begin legal proceedings against the owners of the Pridgeon. Accordingly a libel for $65,000 was filed in the United States district court, and the marshal took charge of the steamer last night. The papers were served on the boat while she was in drydock undergoing repairs. John Pridgeon Jr., owner of the libeled steamer, arrived from Detroit before the papers were served, and retained Mr. C. E. Kremer to represent his side of the case. The same attorney has also been employed by the Vermont Central railroad company, to whom the Pridgeon is chartered for the season. Mr. Kremer will file a petition asking the court to have the Pridgeon appraised and allow his clients to limit their liability to the value of the vessel. Mr. Goulder anticipated the action of his opponents and filed the libel at once so as to protect his clients, as, by a recent judicial interpretation of the limited liability act, the Pridgeon could have left Chicago for Ogdensburg, her home port, and in the event of her being sunk her owners could limit their liability to the value of the steamer as she lay on the bottom of the lake. Now her owners must pay into court the value of the steamer before she can leave port.

WILLIAMS.

ERIE.

The United States steamer Michigan and revenue cutter Perry and other vessels which went to search for the schooner reported in distress off Manchester, seven miles east of Erie, have returned without any tidings of either crew or vessel. All day long wreckage has been coming ashore in large quantities—spars, portions of the cabin, pails—and everything indicates that the vessel must have gone to pieces within a few minutes after she struck. When seen by some fishermen her crew were in the rigging. Up to this time there has not been a single thing found which would indicate the name of the unfortunate craft or the number of men lost. A portion of of a yawlboat was found but the name board was missing. A report obtained currency that wreckage had been found on the shore at Eight mile creek, and that pieces of the wreck which came ashore bore a name which as near as could be remembered, was the Peru, of Chicago.

BUFFALO.

Special to the Marine Record.

We have to record this week an account of one of the most severe storms that has visited this city for a number of years. Probably nothing that will compare with it since 1844. The gale commenced on Thursday, during the early part of the day, but not until evening, at from 7 until 9 o'clock, did we experience the heaviest and most destructive part of the storm. The water from the lake rushed into the harbor, filling to overflowing the banks of the main creek and Blackwell canal. The sea from the lake made a clean breach across the island into the canal in places for more than a mile east of South Michigan street bridges, and all the houses and shanties, located on the beach, from Michigan street east, were demolished, to the number of some thirty residences, occupied by families ranging from three to eight in each house. Before midnight on that terrible Thursday scarcely a vestige of houses or furniture was to be found on the original site. Everything was strewn over the island in a confused heap, extending nearly one mile along the beach. A more complete wreck cannot be imagined, the people narrowly escaping with their lives. Two small children, aged respectively one year and six years, were drowned. The citizens of Buffalo are doing everything they can to alleviate the sufferings of those who were left desolate. Subscriptions are coming in freely and the relief committees are doing their duty.

During the height of the storm there were several arrivals, some inward bound and some that had gone out in the morning but were obliged to run back for shelter. Some received slight damage. The excellent management of the tugs, always ready to assist, prevented any serious injury to any of the vessels coming into port. The arrivals that evening were the Monteagle with the Mystic Star and White Star in tow. The White Star got across the end of the pier, receiving slight injury and had to be docked. The Fred Mercur with the C. H. Burton, ran back.

Coal freights are again stiff at $1 to Chicago and Milwaukee, and charters have been made to arrive for Ashland at 90 cents, and 65 cents are paid to Duluth. Coal is more plenty, and boats are loaded with fair dispatch.

Judge Coxe of the United States district court Monday handed down a decision in the case of the canal boat R. W. Potter against the schooner E. A. Nicholson and the tug James Adams. On September 8, 1885, while towed in by the Adams the Nicholson struck the Potter, doing considerable damage. The collision happened during a squall. The judge holds that the Nicholson and Adams were negligent and that the libelant is entitled to a decree against them, and directs the clerk of court to compute the damage.

The propeller Selah Chamberlain had only $6,000 insurance, none of which is held by the Bradley estate. In view of this it is thought possible that the estate will try to raise her, for she is worth $54,000 to them when afloat, but no insurance company will touch her for $6,000.

The name of the colored cook drowned from the schooner John Kelderhouse, was A. Millington, and he lived in Chicago.

The mate and three seamen, who survived the foundering of the schooner George M. Case, arrived from Port Colborne. They leave for Chicago after signing a protest of loss.

The schooner Red White and Blue has been surveyed and damages estimated at about $1 800. She had a narrow escape.

WM.

HARBOR SPRINGS.

The Belle Walbridge is in the harbor leaking badly. The Walbridge went ashore at Five Mill Point Thursday, and has a bad hole in her bottom, which has been canvased.

A MARINE COFFER DAM.

The ocean steamship Werra, which was disabled in a recent passage to this country by the breaking of her shaft, is in the New England dock at South Boston for repairs, says the Boston Advertiser. The shaft was broken short off at the outside of the stern post, and the propeller and that part of the shaft which extended outside the stern post fell out and were lost. The repairs to be made, accordingly, consist in putting in a new propeller and a new shaft of the full length, which is twenty-four feet.

The shaft has been ordered by cable to be shipped at once from Germany and the propeller from Liverpool. The former is on board the steamship Donau, which is due in New York on the 25th inst., and the propeller is expected to arrive on the Liverpool steamer due on the 28th. It will take at least one day more to forward these from New York. The intervening time will not be more than comfortably sufficient to remove the remnant of the old shaft and make such adjustments as will be necessary for putting the new apparatus into place expeditiously. Ten or twelve days from the present time will probably elapse before the vessel is ready for the sea.

This work of restoration is of special interest because it is to be done by means of a coffer dam. Notwithstanding that Boston is praised, and justly, for the many facilities which the port offers for ocean steamer traffic, one very important matter is lacking and that is a drydock long enough to contain a first-class ocean steamer. The Werra is 450 feet long. The longest drydock is that belonging to the United States government at the Charleston navy yard. This is but 370 feet long. It was planned and its construction was begun in 1827, and at that time the idea that the merchant service would ever surpass the naval service in the length of its ships was doubtless quite out of the range of the mind's vision. In the absence of a drydock a coffer dam can be made to serve very well in the work now to be done, but the use of it is somewhat of a novelty to the general public, and a good many people visited the dock yesterday, prompted by curiosity about the coffer dam.

The dam is a structure of strong timbers and planks, and its shape or form is that of the bottom, two sides, and one end of a square wooden box. The bottom is settled low enough in the water to pass under the keel of the ship as she lies afloat. It is set under the keel about half the length of the coffer dam. Chains are dropped from the after bulwarks of the ship, and are hooked to the sides of the dam near the upper edge, and drawn perfectly taut by means of a combined shackle and screw attached to each chain. All being well secured, the operation of putting in the bulkhead of the dam is begun. This, when in place, will make the other end of the box already described as having two sides and only one end.

This end or bulkhead is built in two parts and the inner edge of each part is shaped to fit exactly the convex and concave line of the vessel's hull below the water. In the present instance this shape has to be ascertained by taking molds of the interior of the hull at the proper distance from the stern port, making allowance for thickness of the vessel's iron plating. Some aid in making a tight joint against the ship's smooth side comes from putting a layer of sail cloth or like material into the bulkhead as a part of its construction.

This part of the work of shaping the edges of the bulkhead was well done, and both parts were soon put into place and held there by the diagonal thrust of timbers or joist secured against the inner sides of the dam. Before the work of pumping out was begun, or before it had progressed far, shores were set, resting at one end upon the bottom and what may be called the gunwale of the cofler dam and against the ship's hull at the other end.

The tug boat William Sprague began the work of pumping out, and later in the day the tug Curlew was also engaged. The water in the dam is drawn out through huge pieces of suction hose, these being connected with the pumps of the tug boats. With the withdrawal of the water within the dam, an immense upward and lateral pressure is made by the water without, and the joint of the bulkhead against the ship's side by the pressure becomes practically water-tight. When the coffer dam is free of water, a hose attached to one of the pumps of the steamship will keep it clear without difficulty.

The work of putting the coffer dam into position was begun at 8 a. m. yesterday, and by 4:30 p. m. the dam was sufficiently clear of water to expose the ship's stern nearly to the depth of the keel. The end of the broken shaft was visible. It was made with a hollow core of ten inches diameter, and was of rough steel. The strength was, of course, very great, but the question was debated somewhat by the seafaring men present whether it would not have been stronger if wrought solid. The depth of the bulkhead from its gunwale is 20 feet, its width is 30 feet, and its length 35 feet. The sweep of the propeller blades corresponds to a circle of 22 feet.

A NEW STEAM ENGINE.

Considerable excitement has been directed of late in England to the performances of the Merchant engine, for which it is claimed that the difficult problem of the return to the boiler of steam would otherwise be wasted, has now been practically solved by it. Several stringent tests have been made of this engine, under the superintendence of responsible engineers previously unacquainted with it, and the result of one of the most recent may be here given: "The stated effective bore power of the engine (93.3) was therefore obtained at the expenditure of 0.803 pounds of Welsh coal per horse power per hour, and we hereby certify to such ascertained result." The boiler pressure was 241 pounds per square inch; the average vacuum in the condenser, seventeen inches, and the speed, 125 revolutions per minute. The results thus obtained work to a friction over half a pound per indicated horse power per hour. The economy in coal is such that it is calculated that the Peninsular & Oriental Steamship Company would save (£1,000; per day by the use of such engines. As the condenser occupies only a sixteenth of the space of an ordinary condenser, it is adaptable to locomotives, which might, says Mr. Merchant, the inventor, be built to run 1,000 miles without a fresh supply of water.—*Science.*

LIGHTS ON OPEN BOATS.

The following circular has been issued by the bureau of navigation, treasury department:

TREASURY DEPARTMENT,
BUREAU OF NAVIGATION,
WASHINGTON, D. C., Sept. 22, 1886.

To Collectors of Customs and Others:

Complaint is frequently made that open boats and so-called open yachts fail generally to exhibit at night the lights prescribed by law. The failure endangers them and other vessels, it arising largely from misapprehension as to the requirements of the statutes on the part of the owners and of the officers of the government, who request advice in regard to the matter.

Rule 13, (section 4233, revised statutes) relating to boats in the harbors, lakes, and inland waters of the United States, is as follows:

"Open boats shall not be required to carry the side lights required for other vessels, but shall, is they do not carry such lights, carry a lantern having a green slide on one side and a red slide on the other side, and on the approach of or to other vessels, such lantern shall be exhibited in sufficient time to prevent collision, and in such a manner that the green light shall not be seen on the port side nor the red light on the starboard side. Open boats, when at anchor or stationary, shall exhibit a bright white light. They shall not, however, be prevented from using a flare-up in addition, if considered expedient."

The rule is applicable to open sail boats or open yachts, unless they carry the usual side lights, which are preferable to a single lantern.

The "bright white light" on stationary boats should be placed not less than six feet above the rail or deck. (Circular, March 25, 1885.)

Rule 12 of section 4233, relating to white lights on canal boats, on produce boats, etc., does not apply to the open sail boats or yachts aforesaid.

These instructions accord with the international rules (act of March 3, 1885), governing the navigation of vessels upon the high seas and coast waters of the United States, and should be applied to open boats thereon, as well as to those in the harbors, lakes and inland waters of the United States.

Rowboats navigating such harbors, lakes and inland waters, are required to carry, instead of the light or lights aforesaid, one white light two feet above the stem. (Circular, March 25, 1885).

Under the act of June 19, 1886, rowboats and skiffs upon the St. Lawrence river are relieved from carrying lights.

The department held (synopsis, 7646), that the penalty specified in section 4234, revised statutes, applies to certain boats of less than five tons in burden not exhibiting proper lights.

Steam yachts and other boats propelled by steam are governed by the special regulations prescribed for them.

JARVIS PATTEN, Commissioner.
Approved: C. S. FAIRCHILD, Acting Sec'y.

The hydrographic office at Washington received during the last month about a dozen letters from the officers of steam and sailing vessels narrating their experience in the use of oil in the time of storms at sea for the purpose of smoothing the water. There is a singular unanimity in the conclusions of the writers that almost at the instant the oil touched the water it spread far over the surface and reduced the billows to long and heavy but harmless swells. The writers describe a variety of plans for applying the oil. Several of them attribute the rescue of their ships and crews from destruction to the application. Of the hundreds of similar letters received in the past no instance of failure has been narrated when the oil was vegetable or fish oil. Kerosene and the lighter oils have sometimes failed to produce the effect desired.

The Harlan and Hollingsworth company, of Wilmington, Del., entered into a contract last week to build a new iron propeller for the Baltimore steam packet company. The boat will be 292 feet long, 17½ feet deep and 40 feet beam. She is to be completed early next summer, is calculated to make seventeen miles an hour, and will cost about $250,000. The same firm is also busy preparing for the building of the iron steamer for the Windsor steamship company. This vessel will be 227 feet in length, between perpendiculars, 38 feet width, and 26 feet depth of hold.—*Nautical Gazette.*

It seems to be agreed on all hands that coal is to be short in the west this winter. The fall demand is not going to be supplied into a good many tons. Two reasons are given for this state of things, both of which may be correct. The allotment system at the mines made coal short here when the fall demand sprang up, and kept it so, and the western dealer as usual waited for coal to go down before putting in his orders. Result, high prices for coal in the west.

Captain F. I. Merryman is down on Lake Erie hunting for a wreck of one of the Au Sable Lumber Company's boats.

LIGHTHOUSE AT TWO RIVERS.

Notice is hereby given that, on and after November 1, 1886, a fixed red light will be shown from the lighthouse recently erected on the outer end of the north pier at the entrance to the harbor of Two Rivers, Wisconsin. The illuminating apparatus is a steamer lens, lighting 212 deg. of the horizon. The focal plane is 30 feet above the top of the pier and 35½ feet above the lake level, and the light should be seen in clear weather, from the deck of a vessel 10 feet above the lake, 8½ statute miles. The structure is a square wooden tower surmounted by an iron lantern. The lower part of the tower is open frame work, the upper part enclosed for a watchroom. The lantern is painted black; the parapet brown, and the remainder of the structure, white. The approximate position of the lighthouse, as taken from the lake survey charts, is as follows: Latitude, 4408. (34) north. Longitude, 87.33. (33) west. Magnetic bearings and distances of prominent objects are as follows: Sheboygan lighthouse, Wis., S. by W., 27½ statute miles. Manitowoc pierhead light, Wis., S. W. 5¾ statute miles. Grande Point Au Sable lighthouse, Mich., E., 53 statute miles.

By order of the Lighthouse Board.
STEPHEN C. ROWAN, Vice-Adm. U. S. N.

The New York Tribune says the amount of moisture absorbed by grain raised in the very dry air of the plains, or of California, when it reaches the humid air of the seacoast, makes often so great an addition to the weight as to pay the cost of transportation.

The schooner G. M. Case, owned by McDonald of Chicago, was bought by Captain M. Danary, late master of the propeller H. E. Packet, for $7.500 The Case is 327 tons measurement and was built at Saugatuck in in 1874.

RECORD OF VESSEL PASSAGES.

THROUGH THE SAULT.

SAULT STE MARIE, Oct. 13.—Morning, down—Propellers Samuel F. Hodge, Arctic.

Afternoon—Steambarge Australasia, and schooner H. D. Alverson, propeller Alberta.

Morning, up—Tug John Hickler, schooner Thomas H. Cahoon.

Afternoon—Steambarge J. H. Devereux, schooners H. J. Webb, George W. Davis, tug Samson, schooners E. C. Hutchinson, S. L. Watson, steambarge Iron Duke, and schooner Iron Cliff, tug E. M. Peck, schooner Eliza Gerlach.

SAULT STE MARIE, Oct. 14.—Morning, down Steambarges Northerner, James Pickands, C. Tower, Jr., schooner San Diego.

Afternoon—Steambarge R. J. Hackett, schooners Susan E Peck, J. E. Gilmore, H. G. Cleveland, propeller China, steambarge Spokane, steambarge J. W. Wescott, schooners Louie O'Neill, Wm. Brake.

Morning, up—Tug John Hickler, schooner Emue, steambarge Colonial, schooner Specular.

Afternoon—Propellers Athabasca, Nyack, steambarge J. E. Potts, schooner Dan Rodgers, propeller T. W. Snook.

SAULT STE MARIE, Oct. 15.—Morning, down Steambarge Wallula

Afternoon—Steambarge Raleigh, schooners Niagara, Lucerne.

Morning, up—Tug Mystic, schooner H. M. Scove, propellers United Empire, Osceola.

Afternoon—Barge Smith Moore.

SAULT STE MARIE, Oct. 16.—Forenoon, down—Steambarge J. H. Farwell, schooners J. H. Rutter, Jeremiah Godfrey, tug E. M. Peck, schooners C. H. Johnson, George Sherman.

Afternoon—Steambarge City of Rome, schooner Red Wing, steambarge M. M. Drake.

Morning, up—Propellers Smith Moore, Tacoma

Afternoon—Steambarge H. D. Coffinberry, schooner H R. Newcombe.

SAULT STE MARIE, Oct. 17.—Morning, down—Propellers Fountain City, Escanaba, and steambarge Wm. Chisholm, propeller Badger State, steambarges R. A. Packer, Cuba, schooner Donaldson, steambarge Henry Chisholm, schooner Alva Bradley, propeller Acadia, steambarge W. L. Wetmore, and schooner Brunette.

Afternoon—Steambarge Superior, schooners Sandusky, S. H. Kimball, steambarge S. C. Baldwin, schooners India, Debarry, Grace Whitney, Dashing Wave, steambarge Sir S. L. Tilley, schooners G. M. Neelon, J. R. Benson, Augusta, T. R. Merritt.

Morning, up—Propeller Onoko, steambarges Continental and Magnetic.

Afternoon—Propeller Armenia, steambarge Geo. T. Hope, schooner R. J. Carney, propellers B. W. Blanchard, W. H. Stevens, steambarge Forest City, schooners H. H. Brown, Ishpeming, tug E. M. Peck, and schooner Reed Case, steambarge J. H. Prentice, schooners Goshawk, Shawnee, propeller Myles, steambarge Jim Sheriffs, and schooner Pathfinder, steambarge Oregon, schooner Francis Palms.

THROUGH THE STRAITS.

MACKINAW CITY, Oct. 14.—Morning, down—Propeller Portage.

Afternoon—Propeller New York, schooner L. S. Hammond.

Morning, up—Propeller Alaska, J. S. Fay, with schooners D. P. Rhodes, S. J. Tilden, and Negaunee.

Afternoon—Schooner Nassau.

The schooner R. Hallaran ran on the beach six miles below here during a dense fog this morning. The tug Winslow is working at her. She lies on a sandy bottom, and will probably be released without damage.

MACKINAW CITY, Oct. 14.—Afternoon, down—Propeller Calumet and consort, J. H. Outhwaite and consort, R. Wallace with schooner David Wallace, Keystone with schooner J. G. Masten, Queen of the West.

Afternoon, up—Propeller Wissahickon with schooner Schuylkill, Tioga.

MACKINAW CITY, Oct. 15.—Afternoon, down—Tug Winslow, propeller John B. Lyon with schooner John M. Hutchinson, Ira Chaffee and two barges.

Morning, up—Schooner Ellsworth, American Union and Porter, Golden Fleece, propeller Chauncey Hurlbut and two consorts, schooner A. E. Vickery.

MACKINAW CITY, Oct. 16.—Afternoon, down—Propeller Warmington and two barges, Chicago.

Morning, up—Propeller Starucca, schooner John B. Merrill.

Afternoon—Propeller Conemaugh.

MACKINAW CITY, Oct. 17.—Morning, down Propeller Boston, schooner Skylark.

Afternoon—Schooner Lem Ellsworth, and propeller City of Duluth.

Morning, up—Propeller Manistique, W. H. Barnum, R. P. Ranney with schooner John Martin.

Afternoon—Schooner Charlie Marshall, Ada Medora, Milwaukee Belle, G. J. Boyce, propeller Arabia.

PASSED DETROIT.

DETROIT, Oct. 13.—Passed up, morning—Barge Juno and schooner Adventure, propeller Myles, barges Tacoma, M. Sicken and three barges, propeller Wissahickon and schooner Schuylkill, steambarge Cleveland and two barges, schooner Crawford, Missouri and three barges.

Afternoon—Barges S. Shepard, Wm. Edwards, consort, and schooner Penokee, tug Jessie and schooners C O. D., J. U. Porter, barge Smith Moore, propeller Albany, barge Mary Pringle and schooner M. Stalker.

Forenoon, down—Steambarge K. M. Forbes and consort, tug Oswego, barge D. C. Whitney and consort, Kalkaska, propeller Colorado, barge Business and consort, tug Charlton, Hattie Weeks.

Afternoon—Barge S. E. Sheldon and consorts, propeller Clarion, tug Moore and schooners Typo, Monticello, barge Monteagle and consort, Passaic and five barges.

DETROIT, Oct. 14—Passed up, morning—Barges W. H. Barnum, White and Friant and four barges, Oregon and schooner J. Palms, tug A. A. Andrews and schooners Reindeer, Corsican, propeller Celtic and schooner Grantham, steambarge Forest City, consort, and schooner Ishpeming, George King and three barges, tug Niagara and five barges, steambarge Ed Smith and four barges, tug Swain and schooner R. B Hayes, barge Annie Smith and schooner J. C. King, R. J. Gibbs, Mineral Rock and three barges, J. H. Prentice and consort, tug Champion and schooners Delaware, A. P. Grover, tug Record and three barges, propeller Armenia, barge Continental and consort, propellers Conemaugh, and Onoko, Nashua and two barges.

Afternoon—Propeller B. W. Blanchard, Tioga, Starucca, barge Glengarry and consort, tug Ballentine, barge D. Leuty and four barges, tug Torrent.

Morning, down—Tug Colton and one barge, propeller Commodore, barge Germania and three barges, Mackinaw.

DETROIT, Oct. 15.—Passed up, morning—Barge Eighth Ohie and one barge, tug Oswego and schooner H. Fitzhugh, steambarge Westford and two barges, propeller St. Louis.

Afternoon—Barge Schoolcraft.

Morning, down—Propeller Arctic, S. F. Hodge, tug McArthur, propellers Portage, New York, Pacific, Buffalo, tugs Champion, Crawford, barge Wm. Cowie and two barges, Oscoda.

Afternoon—Steambarge Tempest and four barges, Benton and four barges, Oscar Townsend and consort, Hiawatha, consort and schooner Wayne, Garden City and five barges, Bay City and three barges, tug Gladiator and four barges, Empire and four barges.

DETROIT, Oct. 16.—Morning, up—Barge Kasota and consort, E. B. Hale and schooner Thomas Quayle, tug Torrent, propeller Montauk, Nebraska and barge A. A. Carpenter, Juniata.

Afternoon—Tug International, schooner Erastus Corning.

Morning, down—Propeller Northerner, steambarge G. L. Colwell and three barges, propeller Milwaukee, steambarge D. W. Powers, John B. Lyon and consort, propeller W. J. Averill, tug Torrent and raft, steambarge Bessemer and consort, James G. Blaine.

DETROIT, Oct. 17.—Passed up, forenoon—Barge Otego and one barge, tug W. S. Cushing and schooner Zach Chandler, steambarge Oscoda, Republic and consorts, T.S. Christie, D. Ballentine and consort, J. F. Eddy and consort, Cumberland and schooners Crosthwaite, P. S. Marsh, tug River Queen and barges O. J. Hale, F. J. Dunford, International and schooners Detroit, J. S. Richards, Seaman, barge A. Weston.

Afternoon—Tug Record and barge Pacific, steambarge Wm. Rudolph and two barges, tug Sweepstakes and schooners Constitution, Unadilla, Itasca, Peter Smith and four barges.

Morning, down—Steambarge J. H. Outhwaite and consort, propeller Spokane, A. J. Hackett and consort, Egyptian, consort, and schooner Charles Wall, R. Wallace and consort, H. B. Tuttle and schooner H. S. Foster, Salina and four barges, S. H. Pickands, propeller Delaware, tug Ella Smith and four barges, barge Handy Boy, Calumet and consort, Keystone and consort.

Afternoon—Schooner A. J. McBrier, and barge Niagara, H. H. Hubbell and four barges, Lowell and two barges, Rhoda Stewart and three barges, Sanilac, D. W. Rust and consorts.

PASSED PORT COLBORNE.

PORT COLBORNE, Oct. 13.—Passed up—Schooner Craftsman, Kingston to Ashtabula; Nevada, Ogdensburg to Sandusky; steambarge Scotia, Kingston to Ashtabula.

Down—Schooner M. J. Cummings, Chicago to Oswego; schooner St. Louis, Chicago to Kingston; steamer W. L. Frost, Chicago to Ogdensburg.

Continued on 4th Page.

Notice.

For the convenience of Vessel owners we keep on hand a quantity of

CANVAS SEWED UP

and can get out a Sail without delay.

DONALDSON'S SAIL LOFT

AND

SHIP CHADLERY HOUSE,

Detroit, - - Mich.

PROCTORS IN ADMIRALTY.

ROBERT RAE,

Admiralty and Insurance Law Office,

Room 37 Mecnanic' building. CHICAGO. ILL.

GEORGE E. HALLADAY.

Attorney and Proctor in Admiralty.

Marine Business Promptly Attended To.

OFFICE 21 BUHL BLOCK, DETROIT, MICHIGAN.

WM. H. DeWITT,

Attorney and Proctor in Admiralty.

ROOM No. 6, BLACKSTONE BLOCK.

CLEVELAND, OHIO.

VESSEL OWNERS AND AGENTS.

ALEX McDOUGALL,

VESSEL AGENT AND BROKER,

Duluth.

Owners and masters of vessels wishing to get cargoes of grain from this port will do well to confer with me. Will be glad to furnish information in regard to cargoes, also in relation to docks, depth of water, etc., at **Duluth, Agate Bay** (new iron ore port), **Port Arthur, Washburn, Ashland,** and all points near the west end of Lake Superior. Good gangs of men furnished on short notice for trimming cargoes of grain, loading and unloading all kinds of freight.

THOS. WILSON

MANAGING OWNER

Wilson's Transit Line.

Gen. Forwarder. Freight and Vessel Agent.

CLEVELAND, O.

J. J. H. BROWN. EDWARD SMITH

BROWN & CO.,

Ship Brokers and Agents.

Special Attention given to Surveying, Appraising and Settling Marine Losses.

Exchange Building, 202 Main-st., Buffalo, N. Y.

PALMER & BENHAM,

Vessel Owners & Agents,

New Bank Building, corner of Superior and Bank Street, Cleveland, Ohio.

WARNER & BECKER,

Vessel Agents and Brokers,

ROOM 10,

Arcade B'ld., 101 St. Clair St,

CLEVELAND, OHIO.

JOHN P. DEVNEY,

Marine Collector.

Collections Promptly Attended to.

ASHTABULA HARBOR, OHIO.

JAMES T. ROSE,

Vessel Agent and Broker,

Room 4, Exchange Building, Duluth, Minn.
I have an excellent gang of Trimmers this season, Captain Miller's old Crew.
Special Attention Paid to Chartering Vessels, and seeing that they get dispatch in Port.

CORRESPONDENCE SOLICITED.

H. J. WEBB & CO.,

Ship Brokers, Vessel Owners and Agents.

[ESTABLISHED IN 1856.]

H J. WEBB & Co., will charter Vessels for Lake Trade Special attention given to Chartering Vessels in the Lake Superior Iron Ore Trade, both for the season and single trip.

ARCADE BUILDING, 101 ST. CLAIR ST.,

Room 27. Cleveland, Ohio.

TELEPHONE { Office, No. 338. Residence, No. 1328.

MOORE, BARTOW AND GILCHRIST,

Ship Brokers and Agents,

No. 101 St. Clair Street, Room 15.

CLEVELAND, - OHIO.

Vesselmen

SHOULD HAVE

OUR MARINE LAW BOOK,

—ON—

Seamen,	Owners,
Freights,	Charters,
Towage,	Registry,
Collisions,	Enrollments,
General Average,	Common Carriers,
Duties of Seamen,	Masters & Owners,

Bill of Lading, Wages, &c.

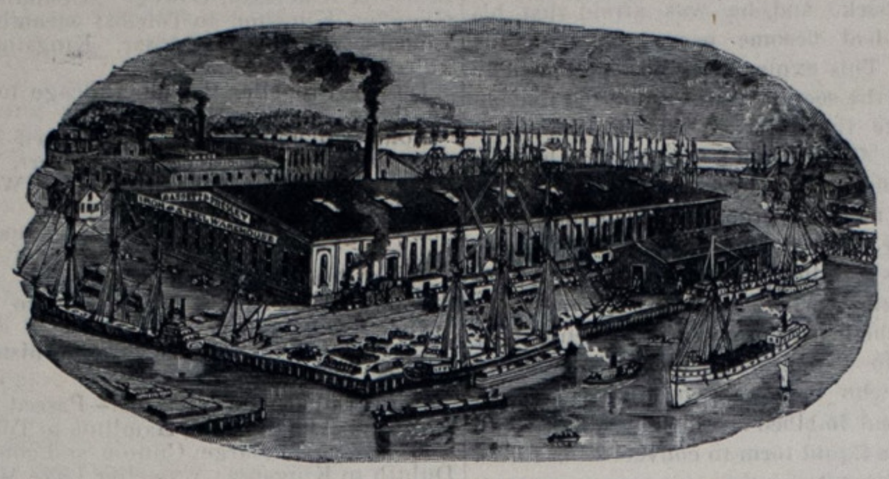
The volume is handsomely bound in stiff Board covers, and fine English cloth binding. Sent to any address postage paid for $1.00.

IRA B. BASSETT. GEORGE PRESLEY, Jr.

BASSETT & PRESLEY,

[Successors to W. H. McCurdy & Co.]

Office and Warehouse, cor. Elm & Hemlock Streets, Cleveland, O.



WHOLESALE DEALERS IN

BAR, BOILER, HOOP, ANGLE AND SHEET IRON.

Nails, Railroad and Boat Spikes, Boiler, Tank and Cooper Rivets, Swedes Iron, Boiler Tubes, Nail Rods, Etc., Etc., Etc.

We Represent in this Market the Following Well-known Manufacturers:

Andrews Bros. & Co. .....Youngstown, O.
BAR IRON AND POLISHED SHAFTING.

Reading Iron Works.....Philadelphia, Pa.
BOILER TUBES.

Central Iron Works.....Harrisburg, Pa.
BOILER PLATES.

Lindsay & McCutcheon,.....Pittsburg, Pa,
HOOP, BAND & STAR HORSESHOE IRON.

George W. Johnson,.....Newcastle, Pa.
TANK SHEET IRON.

Dilworth, Porter & Co., Limited..Pittsburg, Pa.
RAILROAD AND BOAT SPIKE.

Hoopes & Townsend,.....Philadelphia, Pa.
BOILER AND TANK RIVETS.

Sanderson Bros. Steel Co,.....Syracuse, N. Y.
CAST STEEL.

Joseph Corns & Sons ....Massillon, O.
CROWN STAY BOLT IRON.

Pencoyd Iron Works,.....Philadelphia, Pa.
ANGLE IRON.

A Complete Stock of all above Goods in Our Warehouse.

MURPHY & ROOT,

Shipbuilders AND Contractors

GENERAL REPAIRING.

Yard, Old River Bed, ft of St. Paul st.,

CLEVELAND, O. Residence 150 Harbor street.

TO MACKINAC.

Summer Tours.

Palace Steamers. Low Rates.

Four Trips per Week Between

DETROIT, MACKINAC ISLAND

St. Ignace, Cheboygan, Alpena, Harrisville, Oscoda, Sand Beach, Port Huron, St. Clair, Oakland House, Marine City.

Every Week Day Between

DETROIT AND CLEVELAND

Special Sunday Trips during July and August.

OUR ILLUSTRATED PAMPHLETS

Rates and Excursion Tickets will be furnished by your Ticket Agent, or address

C. D. WHITCOMB, Gen'l Pass. Agent,

Detroit & Cleveland Steam Nav. Co.

DETROIT, MICH.

T. F. NEWMAN, Pass and Freight Agent.
A. J JACKSON, Ticket Agent.
23 River street, Cleveland, Ohio.

LAKE SHORE & MICHIGAN SOUTHERN.

Commencing Sunday, May 30, 1886 at 5 o'clock p. m the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper.

Eastward.	Arrive	Depart.
No 4. Fast Limited Express.....	*2 55 A M	*3 05 A M
No 8, N Y, B & A Express.....	*8 25 A M	*8 50 A M
No 26, Elyria Accommodation.....	†7 45 A M	.....
No 24, Buffalo Ac'm via Sandusky	†10 30 A M	†10 45 A M
No 24, Toledo Accom via Norwalk	†10 30 A M	†10 45 A M
No. 10, New York & Boston Ex..	*11 40 A M	*12 noon
No 12, N Y & B Fast Express.....	*2 10 P M	*2 45 P M
No 2, Night Ex via Norwalk.....	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky...	†9 40 P M	.....
No 26, Conneaut Accommodation	†4 25 P M	.....

Westward.	Arrive.	Depart.
No 1, Fast Limited Express.....	*12 15 A M	*12 25 A M
No. 23 Cleveland Express	*2 15 A M	
No 3, Chicago Express via " ..	3 4 00 A M	6 30 A M
No 25, Mich Accom Norwalk.....	.....	†6 30 A M
No 21, Toledo Ex via Norwalk...	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky..	*10 45 A M	*10 50 A M
No 9, Chi Pac Ex via Norwalk.....	*6 15 P M	*6 40 P M
No 31, Elyria ac to Elyria only...	.....	†4 30 P M
No 27. Conneaut Accommodation	†8 10 A M	.....

Sunday train for Nottingham—Depart 8:15 a. m. and 1:45 p. m.; returning, leave Nottingham at 8:50 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

A local Cleveland and New York sleeper daily on No. 12, leaving Cleveland at 2.45 p. m.; arrive Grand Central depot, New York, 10.30 a. m.

For full information as to trains and counections apply at the Union ticket office, corner Bank and Superior streets, under Mercantile Bank.

The Nickel Plate!

NEW YORK, CHICAGO & ST. LOUIS RAILWAY.

The passenger equipment of this New Trunk Line is all new and is supplied with the latest appliances necessary to safe, speedy and comfortable travel.

Trains leave and arrive at the Union Depot, Van Buren street, Chicago, and N Y, L E & W R'y depot at Buffalo.

Following is the time in effect April 25, 1886, and until further notice:

EASTWARD.	Arrive.	Depart.
Buffalo Passenger	*10 40 A M	*10 45 A M
Chicago Passenger.....	*9 00 P M	.....
Local Freight	* 4 40 A M	* 5 45 P M
WESTWARD.	Arrive	Depart.
Chicago Passenger	.....	*6 45 A M
Fostoria Pascenger	*4 46 P M	*4 51 P M
Local Freight...	* 5 00 P M	* 5 50 P M

ROCKY RIVER ACCOMMODATION.

Depart—*7:40 a. m., *1:35 p. m.

EUCLID ACCOMMODATION.

Depart—*6 24 a. m., *9:10 a. m., *5:05 p. m.

*Daily except Sunday.

Through tickets to all points are on sale at principal offices of the company at LOWEST RATES for any class of tickets desired. Baggage checked to destination

For information, call on nearest agent of the Company, or address B. F. HORNER, Gen'l Passenger Agent,

LEWIS WILLIAMS, General Manager, Cleveland, O.

BEE LINE

DIRECT THROUGH CAR ROUTE FOR

TOURISTS TO DENVER, PUEBLO, COLORADO SPRINGS, MANITOU

And all Summer Resorts of the

SOUTH AND SOUTHWEST.

Eastward from Cincinnati, Indianapolis and St Louis, this route furnishes the quickest through car line to the

White mountains, Adirondacs, Catskills

and the sea. Tours via

NIAGARA FALLS

AND THE ST. LAWRENCE RIVER,

With the option of going

DOWN THE HUDSON

Either By Steamer or Rail, to the famous

EASTERN WATERING PLACES,

and all the renowned beaches of the

ATLANTIC COAST.

THIS LINE HAS NO SUPERIOR.

P. S.—Get tickets via BEE LINE, (C C C & I Ry.—D. & U. R R.—I & St. L. Ry.)

A. J. SMITH, General Passenger Agt.,

OFFICIAL NUMBERS AND SIGNAL LETTERS.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION, WASHINGTON, Oct. 11, 1886

To the Editor of the Marine Record:

Following is a list of merchant vessels of the United States to which official numbers and signal letters were assigned by the Bureau of Navigation, Treasury Department, during the week ended Oct. 9, 1886:

Official Number.	Signal Letters.	Rig.	Name of Vessel.	Tonnage. Gross.	Net.	Home Port.
			SAIL VESSELS.			
106,444	.....	Sc.	Annie F. Kimball,	41.01	38.96	Boot bay, Me.
126,389	.....	Sl.	Champion,	8 37	7.96	Bellport, N. Y.
85,943	.....	Sl.	Geo. R. Conner,	5.77	5 48	Norwald, Conn
85,944	K D N G	Sc.	Geo. A. Lawry,	108.12	102.72	Vinal Haven, Me.
85,945	K D N F	Sc.	Geo. W. Kelley,	52 90	40.75	New Orleans, La.
76,649	.....	Sc.	Jacob S. Barne ,	8 14	7.73	Crisfield, Md.
14,450	.....	Sc.	Kate Collier,	9 46	9.00	do do
40,846	.....	Sc.	L. J. Muir,	10.41	9.89	do do
140,847	.....	Sc.	Lou Sullivan,	10 42	9.90	Baltimore, Md.
91,877	.....	Sc.	May Bell,	6 87	6 53	Baltimore, Md.
91,878	.....	Sc.	Mary Ellen,	10.37	9.85	Yorktown, Va.
91,879	.....	Sl.	Mary Ellen,	13 26	12 60	Charloston, S. C.
150,386	K D N H	Sl.	Pilot's Brade,	5 60	5.32	Cedar Keys, Fla.
110,711	.....	Sc.	Rapalo,	.....	27.28	Galveston, Tex
116 122	.....	Cat.	Susie B ,	6.18	5.88	Patchogue, N. Y.
145,431	.....	Sc.	The Belle,	57.00	34 15	Astoria Ore.
145,482	.....	Sc.	Tony Faust,	10.39	9.88	Crisfield, Md.
81,133	.....	Sl.	Wave,	8.19	7 78	Fair Haveu, N. J.
			STEAM VESSELS.			
120,656	.....	St p	Fannie Fern,	179.30	.....	Louisville, Ky.
100,402	.....	St s	Imperator,	93 97	46 09	New York, N. Y.
			UNRIGG'D VESSELS.			
31,484	.....	Barge.	Balize,	356.79	335.34	Perth Amboy N. J.
46 367	.....	Barge.	J. W. A. Albertson,	150.63	143 10	New York, N. Y.
46,368	.....	C. B .	eames H. Burdet ,	102.19	97 09	Whitehall, N Y.

JARVIS PATTEN Commissioner of Navigation.

Established in 1859.

HENRY LEOPOLD.

Manufacturer and Dealer in all kinds of fine and plain

FURNITURE & UPHOLSTERY,

And Manufacturer of Counters, Shelving, Bank and Bar-room Fixtures.

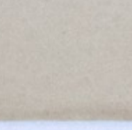
Mattrasses and Vessel Furniture

A SPECIALTY.

Warerooms 798 and 800 Lorain-st., near Fulton. Factory 10 Willet-st.

CLEVELAND, OHIO.

SPIEGLE BROS.



MARINE SUPPLY STORE

WHOLESALE AND RETAIL

Grocers. Bakers and Ship Supplies;

Fresh & Salt Meat of all Kind.

30 & 32 River-st., opposite Detroit Steam boat Landing, and 184 Broadway. Telephone 112,

CLEVELAND, OHIO.

CAPT. GEO. A. SIMPSON,

Compass Adjuster,

COMPASSES, BAROMETERS, PATENT LOGS AND MARINE GLASSES REPAIRED,

Schooners can have their Compasses Adjusted for Local Attraction at the time of repairs by stating how much they are out on East or West Courses, and which way it leads, North or South of above Courses.

161 River St., Cleveland, O.

ENGINES AND BOILER FOR SALE.

The undersigned has in stock a number of engines and one boiler, all new, which will be sold cheap for cash. While the engines are not marine engines they can be made so, at very slight expense. The size of the engines are as follows: One is 12x16, one 10x12, 9x10, 8x10, 7x8, 6x8, 5x6, and two 4x6

JOHN THOMSON,
95 River Dock, Cleveland, O.

VESSEL PROPERTY FOR SALE.

STEAM YACHT FOR SALE.

The steam yacht Enterprise now at Congress Lake, near Canton. Length 35 feet, beam 9 feet, depth 4 feet, draws about 2 feet 6 inches. Has carried 64 passengers. Engine 5x5 high pressure. In good shape, and will sell for $400 at Congress Lake. Address

JAMES NORMAND,
352 Washington Street Cleveland, O

STEAMBARGE FOR SALE.

This is one of the finest steambarges on the lakes, and was built in 1854. She is in good condition in every respect, serviceable, easy to load and unload, and a great favorite. She can not be duplicated for the same money. Her dimensions are 131 feet keel, 143 feet over all, 23.4 feet beam, 8.4 feet depth of hold, and is classed A1½ by Inland Lloyds. She carries two masts. Her carrying capacity is 400 to 425 tons or 14,000 bushels of wheat, or about 240,000 feet of lumber on a dratt of 9 feet 9 inches. Her engine is high pressure 18x20 and her boiler 6½x12 feet of 7-16 Otis steel. Speed 10 miles loaded or 11½ light.

Address MARINE RECORD, Cleveland, Ohio.

FOR SALE.

STEAM PASSENGER TUG TEMPEST.

Steel hull 60 feet over all, 10 feet beam, 6 feet hold. Engines fore and aft compound, 8 and 14x12 Otis steel boiler, return flue, 110 pressure. Complete passenger outfit for forty-three passengers. Speed 12 to 16 miles. H. F. LOOMIS, 151 Arlington-st, Cleveland.

A1 TUG FOR SALE.

This tug is 52 feet over all, 13 feet 3 inches beam, and 6 feet 6 inches depth of hold Engine, 13x14; steel boiler 4 feet 6 inches diameter by 9 feet long. The hull was built by Geo. H. Notter, Buffalo, and is an excellent model and well built. The tug is nearly new, having done only five month's work since she came out new last summer. She has a poop deck and finished cabin fore and aft, and classes A1. Price, $4,300. Address MARINE RECORD OFFICE.

YACHT ENGINE AND BOILER FOR SALE CHEAP.

The engine and boiler just taken out of the yacht Calumet, built by Clute Brothers, Schenectady, in 1881. Engine 11x12 cylinder with cut off. Both warranted in first class order. Pony pump, heater, Hancock inspirator, fine whistle, two patent pop valves, copper exhaust pipe, smoke stack, boiler covered with Asbestos cloth, and Russian iron jacket with brass bands. Complete rig. Price $1250. Apply to

WM. W. ANGEL, Clayton, N. Y.

A BIG OFFER. To introduce them we will GIVE AWAY 1,000 Self Operating Washing-Machines. If you want one send us your name, P. O. and express office at once. **The National Co. 23 Dey St., N. Y.**

GOLD fields are scarce, but those who write to Stinson & Co., Portland, Maine, will receive free, full information about work which they can do, and live at home, that will pay them from $5 to $25 per day. Some have earned over $50 in a day. Either sex, young or old. Capital not required. You are started free. Those who start at once are absolutely sure of snug little fortunes. All is new.

Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building] Cleveland, O.

A. A. POMEROY, EDITOR AND PROP'R

TERMS OF SUBSCRIPTION:

One year, postage paid.....$2.00
Six months, postage paid..... 1.00
Invariably in advance.

THE MARINE RECORD can be found for sale by the following news dealers:

CLEVELAND, O.—G. F. Bowman, corner of Pearl and Detroit Streets.

Evans & Van Epps, Superior street, Cleveland.

R. A. Castner, 254 Detroit street, Cleveland.

ASHTABULA HARBOR, O.—C. Large.

CHICAGO, ILL.—Joseph Gray, 9 West Randolph Street.

CHICAGO, ILL.—August Semper, 345 Noble Street.

BUFFALO, N. Y.—Miss McCabe, Elk Street, near Ohio.

DETROIT, MICH.—N. F. Stewart, Ft. of Woodward Av.

DULUTH, MINN.—C. F. Johnson, 117 West Superior Street.

MARQUETTE, MICH.—J. A. Vannier.

ESCANABA, MICH.—Wm. Godley.

SARNIA, ONT.—D. McMasters.

ST. CLAIR FLATS, MICH.—McNiff & Son.

Subscribers and others are respectfully invited to use the columns of the MARINE RECORD for the discussion of pertinent topics.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, OHIO, THURSDAY, OCTOBER 21.

CAUSE OF STRANDING.

A steamship commander informs us, says the Liverpool Journal of Commerce, that his vessel smelt the land rather too closely lately in thick weather, and as the courses should have placed her some miles off the coast he set his wits to work to find out the cause. He was not long in discovering the reason why his ship was so far from where he expected her to have been. The man at the wheel had a highly polished steel chain around his waist, which held his knife. It struck the captain in an instant that this steel, which was in such close proximity to the binnacle, might have attracted the needle; and on moving the man along from side to side of the wheel, the fact was made apparent. The ship had been steered several points inside the compass course set to be steered. In this case the heaving of the lead betrayed shallow water, and in all probability saved the vessel from stranding. Our informant is of opinion that this circumstance should be made known in order to place captains, mates, and pilots on their guard. A few months ago the master of a steamer was puzzled to comprehend how it was possible for his ship to be approaching a certain headland when she should be proceeding in an almost opposite course. The helmsman, when questioned as to what he carried on his person, admitted that he had on an electric belt, which he used to cure rheumatism. From experiments made it was ascertained that when the man made a circuit, the needle followed him. Steel chains and electric belts have become so comparatively common that every man who takes the wheel should be asked whether he has one or both about him. Not long since an umbrella, with steel ribs and mountings, was said to have caused the compass to act in unison with the movements of the rain shelterer. We formerly referred to a pedlar's pack, which contained needles, creating mischief; and it is recorded that a company of volunteers armed with rifles, bayonets, and swords, caused the compass to be erratic. But these weapons were externally exposed. A strange phase of the mystery of the compass, says the Toronto Mail, was made manifest on the occasion or a recent cruise of the Cygnet. The yacht left Toronto for a run across the lake to Niagara. Everything was fair and smiling. A large party of jolly people were on board who enjoyed the trip greatly. It was found when they came within hail of land that they were seven miles out of their course, having come out opposite Wilson, N. Y. The commander was greatly troubled. It was decidedly a reflection on his seamanship, and he was exceedingly annoyed. He regarded the compass suspiciously, and carefully examined its surroundings, but could discover nothing that would account for any vagaries on its part. While he was standing gazing gloomily at the tremulous needle it gave a sudden start. The commander looked up and found that a stout member of the party had in the meantime approached. As he passed the needle followed his movements, and finally when he stopped at the bow the needle pointed straight at him.

A series of experiments were then instituted, and it was found, when the stout gentlemen was near, that the pointer followed him. He had been indulging in the wild delights of an iron tonic for some weeks back, and he was afraid that his system had become permeated with the metal. This explanation was accepted by all, and the secretary was requested to communicate the facts to the Philosophical Society. The idea of a man making himself a movable magnet by introducing into his system metallic preparations reads like a romance. We do not discredit the statement, as it tallies in every particular with a circumstance which was related some years ago by the master of one of F. Green's ships plying to Calcutta. It was said that an officer who had long been stationed in India had imbibed a sufficient quantity of steel in a liquid form to convert him into a barometer. According to what was stated, his body was so thoroughly impregnated with metallic solution as to make it dangerous to navigation if he stood by the wheel. Anglo-Indians undergo special treatment to extract the mercury. Dr. Chaplin places them in a saline bath, and they stand in a nude condition, with their feet on a copper plate. When the positive and negative points of the battary are brought to bear on the body, the metal in the system flies to the copper, and the latter is coated with the appearance of silver. These are medical methods well known and unquestionable. The metal is produced, and, therefore, must have been in the human system. Whether its magnetic properties are retained in the blood, bone, or flesh, we must leave electricians and physicians to solve; but it is sufficient for our immediate purpose to refer to this feature of motive power. Mr. Rothery would pronounce a master to blame if he could not account for his vessel being out of her course. The wreck commissioner makes no allowance for what cannot at the moment be proved, though the evidence may not be forthcoming. If, for example, a seaman had been in hospital and, to strengthen him previous to discharge, he was thoroughly dosed with tonics, and, before these could work off, he took his turn at the wheel, how would it be possible for a master to scan this unseen agency? Compasses may be corrected and cards of deviation given to masters. There are so many causes to make a compass go wrong that those who profess to know everything have, it is evident, much to learn. Masters of ships, whose certificates are liable to be cancelled or suspended, should never rely solely on the compass. They are useful and indispensable navigation instruments, but they may be misleading, and require supplementing by the log, the lead, and the lookout.s

In his annual report for 1885 General O. M. Poe devoted considerable space to an explanation of the necessity for pushing the improvements of the St. Mary's falls canal. At that time traffic was increasing so rapidly that General Poe predicted that if it continued at the same rate for five years the present lockage system would be insufficient to pass all the vessels. All indications now point to the fact that the limit will be reached much sooner than 1890. The report for the first ten days of the present month shows an increase that is not only phenomenal, but alarming, considering that in case of injury to the new lock, the old one being practically useless, an embargo would be placed upon a commerce of more than 25,000 tons per day for such length of time as might be required to make the necessary repairs. The report shows that the average freight tonnage through the canal from October 1 to 10, inclusive, averaged 27,254 tons daily, a large excess over any ten consecutive days in the history of the canal Up to October 10 the actual amount of freight tonnage through the canal was 3,661,576, as against 2,599,220 tons for the season of 1885 up to October 10, and 3,256,628 tons for the entire season of 1885. The increase of 1885 over 1884 was 409,071 tons, and the increase this year up to October 10 over the season of 1885 was 404,948 tons, or only 4,123 tons less than the total increase for 1885 over 1884. If the record of the first ten days of the present month is continued until the close of the season the total amount of commerce through the canal will approximate 4,587,680 tons, or an increase of 1,331,052 tons over the season of 1885. This indicates that the time is not far distant when serious delays must occur at the lock and business men at Lake Superior ports and vessel owners should take advantage of the statistics given above to urge congress to make adequate appropriations for completing the improvements at the canal.

[*Vessel Passages Continued from 3d Page.*]

PASSED PORT COLBORNE.

PORT COLBORNE, Oct. 14.—Passed up—Propeller Lake Michigan, Hamilton to Sandusky; Oneida, Ogdensburg to Chicago.

Down—Schooner John Wesley, Chicago to Oswego.

PORT COLBORNE, Oct. 16.—Passed up—Schooner American, Oswego to Sandusky; Gleniffer, Kingston to Toledo; steambarge Lincoln and barge Lisgar, Kingston to Toledo.

Down—Propeller Pacific, Chicago to Ogdensburg.

PORT COLBORNE, Oct. 18.—Passed up—Steambarge D. D. Calvin and consort, Weller's Bay to Cleveland; steamship W. A. Haskell, Ogdensburg to Chicago.

Down—Steambarge Abercorn, Saginaw to Oswego.

PORT COLBORNE, Oct. 19.—Passed up—Schooner Watertown, Grindstone to Chicago.

Down—Steambarge Niagara, Manistee to Quebec.

PORT COLBORNE, Oct. 20.—Passed up—Propeller Alma Munro, Hamilton to Toledo.

Down—Steambarge Clinton and consort, Duluth to Kingston; propeller Lake Michigan, Sandusky to Montreal.

PASSED DETROIT.

DETROIT, Oct. 18.—Passed up, forenoon—Propeller Winslow, tug Crusader, schooners Halsted, A. J. Rogers, propellers Newburg, Idaho, tug Champion and schooner F. A. Georger, barge Vienna and consort.

Afternoon—Tug Porter, and schooners Atmosphere J. R. Pelton, propeller St. Paul, barge A. Everett, schooner Sophia Minch, tug International and schooner H. A. Kent, propellers Lycoming, Clarion, Colorado.

Morning, down—Tug Porter and schooners Columbian, S. S. Hammond, steambarge Lincoln and consort, City of Rome and consort, C. J. Kershaw, Gratwick, tug Tarant and raft, steambarge Michigan and three barges, J. H. Farwell and consort, propeller Boston, tug Swain and schooner Scotia.

Afternoon—Steambarge Worthington and two barges, tug A. Sumner and barge Michigan, propeller Fountain City, barge J. W. Westcott and consorts, tug W. D. Cushing, and schooner Niagara, steamtarge N. Mills and three barges, Wm. Chisholm, M. M. Drake, T. W. Palmer and consorts, propeller Empire State.

DETROIT, Oct. 19.—Passed up, morning—Steambarge Birckhead and three barges, Germania and three barges, Siberia and consorts, H. E. Packer, propeller Annie Young, tug Castle, propeller Arizona, barge Maine and three barges, D. F. Rose and three barges, Lowell and two barges, tug Moore and schooners M. W. Page, John Kelderhouse, Arthur, Newsboy, steambarge Mackinaw, schooners John Rice, H. D. Root.

Afternoon—Schooner Garibaldi, propeller W. J. Averill, steambarge City of Cleveland and consort.

Morning, down—Tug Balize and schooners Our Son, H. C. Richards, H. Bissell, Lafrinier, St. Lawrence, steambarge Henry Chisholm and schooner Alva Bradley, propeller Conestoga, steambarge City of Montreal, propeller Waverly, schooner Waukesha, propeller Acadia, barge Ira Chaffee.

Afternoon—Barge Raleigh and consorts, Kalkaska, Clyde, Leland and barge Church, tug River Queen and schooner Smith and Post.

DETROIT, Oct. 20.—Passed up, morning—Propeller Commodore, barge Sanilac, propeller California, steambarge Bay City and three barges, tug Swain and schooner L. A. Burton, steambarge K. M. Forbes and consort, schooner M. E. Tremble, Tecumseh and two barges, Progress, Garden City and five barges, schooner Home, tug International and schooners Jura, P. M. Rogers.

Afternoon—Tug Sweepstakes, schooners C. C. Barnes, Ganges, and Van Straubenzie, Torrent, barge United Lumbermen and consort.

Morning, down—Barge Sakie Shepard, schooner Mary.

Afternoon—Steambarges Oscoda, and City of Mt. Clemens.

THROUGH THE SAULT.

SAULT STE MARIE, Oct. 18.—Morning, down—Steambarge Fred Kelly, schooner Queen City, M. R. Warner, steambarge D. M. Wilson, schooners C. B. Jones, Manitowoc, steambarge V. Swain, Helvetia, steambarge W. R. Stafford, schooner Mears, tug Mystic, schooner Selkirk, Col. Cook, propeller Athabasca.

Afternoon—Steambarge George Spencer, schooners David Dows, Horner, steambarge Simon Langell, schooners S. M. Stevenson, F. M. Knapp, propeller Cuba, steambarge S. J. Macy, schooners Camden, John Burt.

Morning, up—Propellers Campana, St. Louis, Jos. L. Hurd, Roanoke.

Afternoon—Propeller Celtic, and schooner Grantham, steambarge Kasota, schooner G. W. Adams, propellers India, Arctic, Ste Marie, Ohio.

SAULT STE MARIE, Oct. 19.—Morning, down Propeller T. W. Snook, tug Music, schooners Commodore, Nelson, Favorite, propeller Toledo, steambarge Nipigon, schooners Middlesex, Melbourn, propeller Smith Moore.

Afternoon—Tug Andrew J. Smith, schooners W. L. Peck, R. N. Rice, Atlanta, Erin.

Morning, up—Tug Niagara, schooners Montmorency, Montcalm, Montblanc, Montgomery, Republic, steambarge E. B. Hale, schooners Thomas Quayle, J. F. Card, steambarge Republic, schooners Grace Holland, James Couch.

Afternoon—Steambarge Glengarry, and schooners John Gaskin, Glenora, propeller City of Duluth, steambarge Kate Butteroni, schooner Teutonia, tug E. M. Peck, schooner Delaware, Annie P. Grover, and propeller Idaho.

SAULT STE MARIE, Oct. 20.—Morning, down—Propeller Peerless, steambarge Cormorant, schooner Richard Winslow, steambarge H. D. Coffinberry, schooners H. R. Newcombe, H. E. Packer, tug Samson, schooner E. C. Hutchinson, S. L. Watson.

Afternoon—Steambarge Porter Chamberlain, schooners A. T. Bliss, Ida Corning, T. H. Cahoon, propeller Alberta, steambarge Sparta, schooners Sumatra, S. L. Hanna, propellers Canada, Ste Marie.

Morning, up—Propeller Winslow.

Afternoon—Steambarges James Pickands, Cumberland, schooners Crosthwaite, R. S. Marsh, propeller Jay Gould.

THROUGH THE STRAITS.

MACKINAW CITY, Oct. 18.—Morning, down—Propeller Clyde, Alaska, Rube Richards, with schooners May Richards and Watson.

Afternoon—Propellers City of Duluth, Syracuse, H. J. Jewett.

Morning, up—Propeller Nashua with two barges, Nebraska with schooner A. A. Carpenter, Oceanica, schooner R. B. Hayes.

MACKINAW CITY, Oct. 19.—Morning, down—Propeller Rhoda Emily and one barge, Grand Traverse, Fred McBrier, schooners Galatea, Lottie Wolf.

Afternoon—Tug James Reid with schooners F. L. Danforth and Pensaukee, Gordon Campbell, Annie Sherwood, Schuylkill, schooner Metropolis, Angus Smith, Alice B. Norris, J. L. Case, A. R. Mosher, Westside, York State.

Morning, up—Propeller City of Grand Rapids, schooner John Miner, propeller Otego with one barge, Yosemite with one barge.

Afternoon—Newburg, schooner Oakleaf, propeller D. Ballentine with schooner Northwest.

MACKINAW CITY, Oct. 20.—Morning, down—Schooner Naiad, F. B. Gardner, propeller Albany.

Afternoon—Schooner City of Sheboygan, Marengo, Higgie.

Morning, up—Propeller Dean Richmond, schooner F. A. Georger, propeller Annie Young.

LAST week in comparing the relative earnings of grain and ore vessels we made the mistake of figuring ore by net tons instead of gross, that is a vessel carrying 1500 tons would receive freight on but 1340 tons which would reduce her earnings from $3,570 to $3,484. The cost of chartering a 50,000 bushel vessel at Duluth is 40 cents instead of 50 cents and trimming $1 instead of $1.50 as was printed last week, which reduces the cost of a grain cargo to $7,30 per 1,000 bushels.

IT is to be hoped that the Pennsylvania coal kings, like the anarchists, will have to go. In contracting output to raise prices, they deprive lake carriers of cargoes and the people of dependent states of fuel. Common law is against them, and the supreme courts of Pennsylvania and New York have decided that their combination amounts to criminal conspiracy.

[*Around the Lakes Continued from 1st Page.*]

FRANKFORT.

Special to the Marine Record.

Lieut. J. H. Rogers, U. S. life saving inspector, 11th district, was here on an official visit last week.

Richard Kitchen, the old pioneer postmaster of South Manitou island, who has lived there over a quarter of a century, and is well known to all lake sailors, was in Frankfort last week, having made his annual trip to Milwaukee for provisions, etc.

Tug Hannah Sullivan is now engaged in fishing at Kenosha. She was stationed at Frankfort the early part of the season.

Captain Peter McGregor, of tug A. P. Wright, of Manistee, spent a few days of the past week in Frankfort while the tug was receiving repairs to her machinery.

BURMEISTER.

ELK RAPIDS.

Captain Slyfield, former owner of the steambarge Cleveland, has purchased the propeller Leland from the Elk Rapids Iron Company, the consideration being $13,000.

THREE leading officials of the Vermon Central railroad company were in Chicago last week to complete arrangements for enlarging their line of steamers. The officials are President J. Gregory Smith, Vice President E. C. Smith, and General Manager J. W. Hobart. They took proposals for dock room and for the construction of a warehouse, which is to have a frontage of 300 feet. The officials are negotiating with the Detroit Drydock Company with the view of building two composite steamers, to cost $150,000 each.

PORT HURON.

L. B. Forester is the name of the little scow recently launched by Will McCollough.

The tug Merrick's new boiler has just been finished and delivered by Love & Schofield.

The steamer Cole will leave every Saturday for Port Hope and shore ports till the close of navigation.

The schooner Thos. P. Sheldon, recently raised and brought to this city for repairs, was completed last week, and sailed for Lake Superior. Her repairs cost about $8,000.

EAST SAGINAW.

Special to the Marine Record.

On Thursday night last the river line steamer L. G. Mason made her regular trip to Bay City, and after discharging her freight went to her slip at Murphy & Dorr's mill, on the middle ground, and was made fast for the night. The crew turned in, but were aroused about 12 o'clock by one of their number who had been awakened by a cloud of smoke, and it took but a moment to ascertain that the steamer was on fire. An alarm was sounded in Bay City, but the location of the burning vessel made it difficult to throw a stream upon the flames, which, fanned by the high winds prevailing at the time, soon completely enveloped the boat. In a very short time the entire upper works were consumed and the remains of the hull with the boiler and engine sunk to the bottom of the slip. The Mason was built at Grand Rapids, Mich., in 1864, and a few years later was brought to the Saginaw river and placed on the route which she has since constantly traversed. In 1875 she was thoroughly rebuilt and has since then received several overhaulings. She was purchased a few months since by Messrs. English & Mahar from the Root estate and was valued at $10,000; insured for $6,000. The Mason is the third steamer of the river line that has burned, the Daniel Ball and Cora Locke having been destroyed some years ago.

The steamer Wellington R. Burt which was laid up for the season, has taken the recently burned steamer Mason's place on the river route.

The barge Mary Stockton, recently libeled for a $300 tow bill, at this port, paid up on Saturday and went her way rejoicing.

Captain John Dawson, of the fire tug Charles Lee, while pushing out flood wood from between his boat and the dock, on Friday morning, struck what proved to be a floater, which, upon investigation, was identified as John E. Lake, a well known painter of this city, who had walked off the dock while under the influence of liquor. This is the twentieth body fished out of the Saginaw river so far this season, and nearly all of whom, when last seen, were intoxicated.

The tug Charles Lee had a new towing wheel put on her at Bartlett & Company's slings on Saturday; the tug Tracy was in for repairs to her shoe; the yacht Laulie for a thorough recalking.

Joseph Robarge and Peter La Point have been awarded the contract of converting the barge Richard Martini from a tow barge to a steambarge by Captain L. F. Hunt. The boat, when finished, will have 42 feet of new work, 180 feet over all, 172 feet keel, 26 feet beam, and 9 feet 9 inches in the hold. She will have a carrying capacity of 550,000 feet of lumber. The engine and boiler to be used were formerly in the tug Standard, which was a dandy for her inches.

Major Henry M. Youmans, of this city, has been awarded the contract of dredging at Middle Neebish, Hay Lake channel. His bid was $2.50 per cubic yard. The contract involves an outlay of about $125,000.

The tug Jordon Beebe, Jr., reported lost last week while on her way down from Port Arthur, was in port Tuesday. The engineer reports having had a narrow escape from going down, off Pie island, and that the crew lived four days on potatoes only.

The dockwollopers who recently asked an advance from 40 to 50c per hour, are now "boiling again" and will demand 60c per hour, on the arrival of the big fleet about Thursday. The effect of this move will, in a measure, keep boats away from the river, the wollopers will have less work to do at the advance, and will be nothing ahead in the end. SHAW.

MACKINAW CITY.

The tugs Leviathan and Winslow succeeded in releasing the Wilson and consorts, ashore on Mackinaw island early Wednesday morning. They lightered some of the ore and jettisoned considerable. The Wilson is leaking, but her own pumps keep her free. One pump keeps the Manitowoc free. The Jones is not leaking any. They will leave for Chicago without assistance as soon as the weather permits.

SAULT STE. MARIE.

The steamyacht Lizzie Sutton, bound from this place for Houghton, sought shelter three miles above Whitefish point on the 19th inst., letting go her anchor with a cable attached to it. During the night the yacht caught fire forward. The cable burned and the boat drifted out into the lake. The crew, consisting of two, escaped in the small boat and were picked up by the propeller Ste. Marie. The hull burned to the water's edge and sank. Value $2,500.

ASHTABULA HARBOR.

The shipwrecked schooner Nevada has been sold to G. Sheldon by the underwriters.

ST. CLAIR FLATS.

Special to Marine Record

The 14th was the day of disasters of the season at the St. Clair Flats. The wind blew with such force as to dislodge heavy logs that had been stationary for years. Families left their own homes and took refuge with neighbors who had stronger buildings. The wind commenced blowing in the morning from the southeast and continued a steady push until it reached a velocity of about seventy miles, veering in the evening to the southard and westward.

The tug Record with three barges in tow, bound up, was abreast of Bedore's landing, and we give Captain Will Bates much credit for the good management of his boat, as the wind was at its height at that time.

The steamship Onoko, in trying to go to leeward, in passing the tug Record, going the same way, struck her shoe on the bank and was blown aground, and remained until morning, when Captain John Miller, of the tug Champion, released her.

About the same time the barge Lady Franklin was blown aground below Bedore's landing, and will have to be dredged off.

McNiff & Son's ranges were not lighted during the blow, as it was impossible for a small boat to live. The bright light of the range at the foot of Herson island, was completely blown away, but has been ordered replaced at once.

While Bob was at Saginaw this week he received information that the range, on the foot of Herson island, was not kept lighted, and at once started for home to find out what was the matter. This will not occur again during the season.

Up to this writing there is considerable property at large. The little schooner Idaho was blown high and dry, just below the center light at Southeast bend, and had to lighter her deck load before being released by the tug Wm. Park, which after working about twelve hours finally got her off. She has gone to Detroit for repairs. The lumber was left in charge of McNiff & Son, and will be rafted and put on Bedore's dock. We have not a full account of disasters at the Flats yet.

The steambarge Lowell, bound down, with three vessels in tow, collided with the schooner James Couch, bound up, in tow of the steambarge Republic, and we expected that the boom of the Couch would clean pilot house and smokestack off the Lowell, but such was not the case. After going by the Lowell she made almost a bee line for the head barge which she struck a glancing blow and passed on to the next, but missed her. It seems that this point is a bad one for the Lowell. On the 30th of September she had her tow broken up only a few rods from where she collided this morning.

The Polynesia's anchor that was lost some time ago has been gotten up by McNiff & Son, and they are awaiting orders from the owners. The schooner Souvenir's anchor will be got up as soon as the Polynesia's is disposed of. Captain Geo. T. Rogers, of the schooner Centennial, is very successful in grappling for anchors, and any one needing such service should give the captain a call. BOB.

CLAYTON.

Special to the Marine Record.

The great storm of last week broke in upon us on Wednesday night, and all day Thursday blew a fresh gale from the south.

The schooner Gipsey, coal laden, from Oswego to Clayton, was driven ashore on Mud island, opposite Carlton island, below Cape Vincent. She lies canted over, so one rail is under water and part of her hatches. The coal will be taken out and she will be raised and brought to Clayton.

The wind on Thursday night was terrific, accompanied with rain. On Friday the wind shifted to the southwest and to the westard, blowing fresh, and with a big sea rolling down the river. Toward night the wind hauled to the north, became more quiet, and the weather was somewhat colder.

One of the Vermont line steamers passed up on Friday in the face of the gale.

The owners of the schooner Belle Mitchell, up to Monday morning, have heard nothing from her captain. He left Toledo just before the gale and some anxiety is felt for his safety.

We, no doubt, will hear of many shipwrecks and much loss of life from the gale of last week. Many a home will be left desolate.

The steamer John Thorne has been taken to Kingston, had her engine removed, and new keelsons and engine frames will be placed in her and the steamer be put in first-class order.

The steamer Maynard makes her last trip to Alexandria Bay to-day. B.

ALPENA.

The schooners Millard Fillmore and Case, in tow of the propeller Ira Chaffee, broke away during the gale Thursday. The Fillmore went on Middle Island, and was water logged. She was released by the tug Sumner, and taken to Presque Isle harbor. The Chaffee and consorts were lumber laden and bound down. The schooner C. O. D., which lost all her canvas will be taken to Milwaukee by the tug John Martin. She was coal laden and bound for Milwaukee.

BAY CITY.

Special to the Marine Record.

The Saginaw Valley was visited on Saturday night last with the first snow storm of the season. On Sunday it turned to rain and was exceedingly nasty outside, as a heavy southwest wind prevailed most of the day. Great anxiety is felt for the safty of a number of small craft that left port Saturday afternoon for shore points. But nothing of a serious nature has been reported at this writing. Word was received from Sand Beach that the barge Matilda owned by A. N. Pinet of East Saginaw and in tow of the steambarge M. Sicken bound for this port with stone had struck the breakwater and sunk. Mr. Pinet has sent assistance from here and will bring the unfortunate barge to this port for repairs. The Matilda was but recently thoroughly rebuilt at the Bay City drydock, and rated B1½. Mr. Pinet had no insurance and feels his loss keenly.

The mate of the steambarge A. A. Turner, a Mr. Mason from Detroit, had a narrow escape from instant death on her last trip to this port, he having fallen from a lumber pit 25 feet and escaped with a compound fracture of the ankle.

The little steam sand scow Ida Burton is doing a land office business at both ends of the river, and it is stated, makes it hot for the old style of sand diggers who work by hand power.

The propeller Arundel and steamer Metropolis of the shore line are going out each trip loaded down with camp supplies for up shore points.

The steamer L. G. Mason burned to the the waters edge and sunk at the Dorr slips on Thursday night. The wind was blowing a gale at the time and all efforts to save her proved of no avail. She was but recently purchased by English & Mahar together with the steamers Lucile and Burt from the Root estate.

Captain Geo. King owner of the tug Geo. B. Dickson is having a new towing wheel made for his tug at A. F. Bartlett & Company Works East Saginaw. This firm are also casting one for Captain Armstrong's new steamer.

The propeller Sanalac has made twenty-five round trips between this port and Cleveland this summer and intends making five more before the close of navigation.

The tug Gladiator of Detroit was in port Saturday and took out the barges J. E. Sparrow, Norway and Hoag bound for Tonawanda.

Captain Ford Barclay, who last season sailed the tug Tom Maytham, is now in command of the tug Jorden Beebe Jr.

Fishermen arriving in from outside report the catch as light.

The tug Tom Dowling with steam pumps has gone to Sand Beach to pump out the barge Matilda.

Freights have again advanced and are now quoted as follows: Bay City to Buffalo, $2.50; Saginaw to Buffalo, $2.62½; Bay City, to Ohio, $2.00; Saginaw to Ohio, $2.12½. SHAW.

MILWAUKEE.

Wolf & Davidson have received a dispatch from Captain Benham, of Cleveland, asking for a bid to raise and deliver at Milwaukee the Selah Chamberlain. They will furnish the bid this fall, as they think it impossible to raise her before spring, if she lasts till then.

The new steamship, building at Wolf & Davidson's yard, will be named after Roswell P. Flower, of New York, one of her owners.

The scow Supply encountered a heavy sea shortly after leaving Muskegon Wednesday night, and sprung aleak. All night and until 2 o'clock in the afternoon her crew worked at the pumps, but she finally waterlogged when off Fox Point. The heavy northwest gale struck her, she went on her beams end and lost her deck load. Her decks filled with water and the crew lashed themselves on the top of her cabin. The steambarge Oswegatchie sighted her signal of distress and sent the tugs Coe and Welcome from here to her. As the Coe passed her three of the crew jumped aboard and the Welcome subsequently took off the captain. The vessel was towed in here and capsized in the harbor.

The schooner Australia, lumber laden for Chicago, was towed in here in a waterlogged condition. Her crew was nearly exhausted from a long siege at the pumps.

PORT COLBORNE.

The schooner George M. Case, Captain Wm. Daily, which foundered about three miles off this port, by which disaster Captain Wm. Daily, seaman Ole Green, and the cook, Maggie, lost their lives, registered 327 tons, was built at Saugatuck by Martel in 1874, classed A2, and was owned in Chicago by Captain Wm. MacDonald, who formerly sailed her. John Pendergast, mate, and Charles Peterson, C. McCarthy and Ole K. Nysted, sailors, who clung to the spars, were rescued by the tugs W. A. Moore and Ruth. The Case had just opened on the ranges and was filling away for the harbor when she sunk. She was insured in the pool for $7,425, and the cargo for $8,000.

KINGSTON.

The News reports the following damages from Thursday's gale: The scow Glasgow is ashore in the big mill long pond, near Deseronto. She was carried over the boom.

The schooners Kate, W. D. Suffel and Sidney are ashore near Deseronto. The former is high and dry on Conger's island.

The schooner Westside loaded with grain from Chicago to Ogdensburg had her foresail split. She is lying in the harbor waiting for a pilot.

The Varuna broke and lost her rudder between Deseronto and Thompson's point. She was picked up by the Gipsy and towed to the latter place.

A portion of the John Thorne's hurricane deck was blown off and deposited on the St. Lawrence on the opposite side of the Kingston foundry wharf. The damage is slight.

The schooner Gipsy, Captain Cooke, loaded with coal from Oswego and bound for Clayton, ran ashore on Mud Island. A man came to the city to engage the Khartoum to lighter the Gipsy's cargo.

The Jessie Breck had a terrible passage down, the waves sweeping over her and not only carrying away her deck load, some thirty tons of coal, but every movable article also. The captain says that very often the vessel was completely under water and nothing but her spars, to which the men clung could be seen. She is seaworthy, however, and withstood the gale with ease.

BELLEVILLE.

A great deal of damage in and around town was caused by the recent gale. The schooner Mary Foster, which had entered a cargo of lumber on the opposite side of the bay, broke her lines and drifted across the bar at the mouth of the harbor, where she was blown high upon the beach.

BLENHEIM.

The schooner O. M. Bond, of Oswego, bound from Detroit for Buffalo, laden with 22,000 bushels of wheat, is ashore at Rond Eau Point. The vessel and cargo are a total loss. She was owned by Captain Le Feure Patrick Ryan, of Oswego, mate, and James Hughes, of Muskegon, were drowned. On June 29, last, she struck the pier at Dalhousie and became a constructive total loss. She was taken to Buffalo and repaired and had made only a couple of trips when the present disaster befell her; thus she has twice became a total loss within three months, each time costing the underwriters $7,000.

OSWEGO.

A movement is on foot for a benefit for the family of Captain Patrick Ryan, who was drowned off the schooner O. M. Bond. The family of Captain Ryan consists of his wife and six small children who will be left without his support in a helpless and almost destitute condition. The movement is in the hands of able and energetic men. Manager Pierce of the academy of music has offered the free use of his place of amusement for the benefit and it is understood that some of the best musical talent of our city have offered their services. It is to be hoped that this truly benevolent object should be encouraged and a goodly amount raised for the family of Captain Ryan.

OTTAWA.

An experimental shipment of grain from Chicago passed through Ottawa for Boston within a day or two. The shipment is quite extensive, several hundred cars being engaged. The route taken is by steamer to Owen Sound, thence by Canadian Pacific railroad to Ottawa, and on to Boston by Canada Atlantic railway. Should the experiment of bringing grain this way prove a success this will be the beginning of an extensive traffic.

CHEBOYGAN.

The steambarge Burlington has been making temporary repairs, which will cost nearly four hundred dollars. At Duncan City she stuck on the ways for two days under a heavy expense and unable to extricate herself. Tugs finally pulled her off.

Captain Hebner's boat the City of Concord has gone to Grand Haven where she will run the rest of the season.

MARITIME LAW.

MARITIME LIEN—DIVER AND ENGINEER ON WRECKING TUG—LIEN OF OWNERS OF STEAMER ASSISTING TUG—ENGINEER ON ANNUAL SALARY—REPAIRS BY STOCKHOLDER—PRIORITY OF LIEN—WHARFAGE—LAKES IN WINTER.

District Court, E. D. Michigan. June 17, 1886.

A person employed as a diver and engineer of a steam pump upon a wrecking tug has a lien upon such tug for his services. So, if he contract for services upon any several tugs belonging to the same company to which he may be ordered, and his engagement be for a *per diem* compensation, he is entitled to a lien upon each of such tugs for the time he is actually employed about her. So if the services of a steamer are necessary to assist such tugs in rescuing wrecked vessels by dredging, pulling, running upon errands, or otherwise, the owner of such steamer has a lien upon the tug. A person employed as chief engineer of a line of vessels at an annual salary has no lien upon any vessel of the line for his compensation. Where a stockholder and director of a steamboat line, who also held the office of treasurer, put repairs upon the several vessels of the line, it was held that his lien, if he had any at all, should be postponed to that of the other creditors. There is no lien for wharfage during the winter season upon the lakes.

In admiralty.

The tugs Gladiator, Andrew J. Smith, Balize, Kate Williams, and William A. Moore, belonging to the Detroit Tug & Transit Company, of which Samuel J. Murphy was president, having been sold by the marshal, and the proceeds paid into the registry, it was stipulated that the various questions of liability for doubtful claims should be informally considered by the court upon exceptions to the report of the commissioner assessing damages.

Brown, J. The first claim is that of Harry Clark for services as a diver and steam pump engineer, rendered upon the following state of facts:

In April, 1885, the libelant made a contract at Detroit with Mr. Murphy, president of the Detroit Tug & Transit Company, to serve as diver and steam pump engineer, and was to be paid for his services $10 a day and his expenses from the time he left Detroit until his return. In pursuance of this contract, libelant proceeded by rail to the south shore of Lake Superior and reported for duty to the master of the tug Smith. It was then employed in the work of releasing the steambarge Morley, which was aground at that point. He worked under the orders of the master of the Smith from April 15th to May 17th, hauling lines, locating the tug and her lighter for the promotion of the work, diving and running a steam pump when necessary. When the job was completed, he was ordered to go to the schooner Harvey Bissell, which was ashore near Marquette. He walked from Marquette to the Bissell and was engaged five days in assisting in getting her afloat. During this time his work was done either upon the Bissell or upon the wrecking schooner Johnson in attendance upon her. The tug Gladiator, owned by the Tug & Transit company, was at work at this wreck. From there he was ordered to the wreck of the Erin, where the tug Williams, also owned by the claimant, was at work, and was engaged there until she was raised, and stayed upon her until she was towed to Collingwood, from which point he went by rail to Detroit, where he arrived June 17th. The testimony shows that at each point where he worked he acted under the immediate orders of the captain of the tug which was engaged upon the wreck, but that it was a single contract when made, and that if he was ordered to go anywhere else he certainly should have gone, and that he would have expected pay at the rate of $10 and expenses until the return to Detroit.

There can be no question in this case that the services rendered by libelant were maritime in their nature, and that if he had made the contract in each instance with the salved vessel, he would have a lien upon such vessel enforcable in this court. I deem it equally clear that if a tug be fitted out at the opening of the season for wrecking purposes, and as a part of her equipment engages the services of a diver or steam pump engineer, such diver or engineer would also have a lien upon the tug to which he was attached for the season. The Highlander, 1 Spr. 510. In such case he would not probably be entitled to a lien upon the different salved vessels, since his own contract is with the tug. This was the conclusion of my predecessor in the case of the Marquette, 1 Brown, Adm. 364, and I have seen no reason to doubt its correctness. The difficulty in this case arises from the fact that the contract between the libelant and the Tug & Transit company was not for services upon any particular tug, but for services upon any tug owned by the company to which he might be ordered. I doubt if this circumstance varies in any way the principal applicable to this class of cases if his services are paid by the day, and are therefore capable of apportionment. While the services may not be actually rendered upon the tug, he is for the time being a part of the equipment of such tug, and entitled to a lien upon her, upon the principal announced by this court in the case of the Minna, 11 Fed. Rep. 759, in which I had occasion to hold that all hands employed upon a vessel, except the master, were entitled to a lien of the services were in furtherance of the main object of the a enterprise in which she was engaged. In this case a lien was sustained in favor of persons employed upon a fishing tug, solely for the purpose of catching and preserving fish, notwithstanding the fact they took no part in the navigation of the vessel, and that an incidental portion of their duties was performed on shore.

To deny the libelant a remedy by lien is virtually turning him over to a personal claim against an insolvent corporation. While the case is a somewhat doubtful one, I am inclined to allow the claim.

The claim of Joseph Croze against the Gladiator is not distinguishable in principal from that of Clark. He alleges that, while the Gladiator was engaged in wrecking vessels upon Lake Superior, it became necessary for her master to employ his tug to assist the Gladiator, by dredging, pulling, running of errands, and otherwise, and it is conceded that such services were necessary to enable the Gladiator to get the stranded vessels off the shore. It is contended, however, that libelant has no lien upon the Gladiator, but his remedy, if he has any, is against the salved vessel. But there is no evidence that he was employed by the master of the salved vessel, or that the master of the Gladiator had any authority to bind her by his employment. His contract was to release the stranded vessel for a certain sum, and to furnish all the necessary appliances for the task. Libelant knew that this was in substance the contract between them, and it is clear that he could have no lien upon the stranded vessel. Of course, libelant has no lien upon the Gladiator as a salvor, but I see no reason why, if the services of his tug were valuable to the Gladiator, he should not be entitled to the lien of a material-man. In Amis. v. the Louisa, 9 Mo. 629, it was held by the supreme court of Missouri that work done upon barges charged to have been appurtenances of a steamboat gave rise to a lien against the latter, upon the theory that the barges were considered as necessary appendages to the steamboat in order to enable her to transport freight. So, in Gleim v. Belmont, 11 Mo. 112, it was held that the hire of a barge to a steamboat would be regarded as material furnished for her equipment. This was also the ruling in Iowa, in the Kentucky v. Brooks, 1 G. Greens, 398. See, also, the Dick Keys, I Biss 408.

Upon the whole, I think this claim is a meritorious one, and should be allowed.

The claim of Thomas Murphy for his salary as chief engineer of the line, which was composed of five tugs and a schooner, must be disallowed. His services consisted in planning, superintending, and directing the operation, repairs, and improvements upon the several vessels of the line, and keeping them in a sea worthy condition, at a salary of $1,500 per year. But, however meritorious these services may have been, it is impossible to apportion his compensation among the different vessels of the line. Maritime liens are said to be *stricti juris*, and, while courts in recent years have been very liberal in sustaining them for maritime services, the work done for such vessels must be capable of definite ascertainment and apportionment. We have no right to adjust a demand for work done for the benefit of several vessels, and to charge each with its proportion upon an equitable basis.

Murphy's bills for repairs put upon these vessels are not open to this criticism, but they are objectionable for another reason. He was not only a stockholder in the Tug & Transit company to the amount of $30,000, as well as a director, but was treasurer of the company, and entitled by law to the custody of its funds. It is true that his acts as treasurer consisted merely in indorsing checks for deposit, and that he did not in fact handle the funds of the corporation; but, if he chose to waive his legal rights in this particular, the other creditors of the company ought not to be prejudiced by reason of his neglect. I do not think the mere fact that he was a director and stockholder would necessarily prevent his contracting with the company, or from acquiring a lien upon the property. But his position as the legal custodian of its funds is strong evidence to show that he relied upon the personal credit of the company, or, rather, upon his ability to pay himself out of its funds, and his lien should therefore be postponed to that of the other creditors. The St. Joseph, 1 Brown, Adm. 202.

The claim of William Miller for wharfage during the winter of 1884 and 1885 must also be rejected. It has been our practice to limit the application of the state statute giving a lien for wharfage to the season of navigation, when the use of a wharf is necessary to the employment of the vessel but not to allow a lien for services rendered the vessel while she is laid up during the winter; such as the use of a slip, the storage of sails and rigging, or the hiring of a watchman. These are in no sense maritime in their nature. The E. A. Barnard, 2 Fed. Rep. 712; the Island City, 1 Law. 375; the Thomas Scattergood, 1 Gilp. 1. In cases of this kind the wharfinger would probably have a common law lien dependent upon possession, and he should not relinquish such lien until his claim is satisfied.

SINKING OF THE SELAH CHAMBERLAIN.

FIVE MEN PERISH.

SHEBOYGAN, WIS., Oct. 14.—The steamer Selah Chamberlain left Milwaukee light at 3:30 yesterday afternoon, bound for Escanaba. The weather was thick, with the wind blowing a stiff breeze from the south. The steamer was sounding her whistle at regular intervals.

At 8:30, when off Sheboygan harbor, and about seven miles out in the lake, they heard another steamer whistle directly ahead and close aboard. The captain of the Chamberlain sounded one blast from his whistle and put his wheel aport, when, without any other warning, the two steamers came together. The wind and sea immediately separated them. The Chamberlain kept sounding her whistle for assistance, but no assistance coming the crew proceeded to launch their lifeboat. When they got their smallest lifeboat swung over the side, and ready to lower into the water, seven of the crew ran and jumped into the boat, and their combined weight broke the davits, and five of them fell into the water. Two men, the cook, and steward, being under the thwarts of the boat, were not thrown out, but the other five were not seen again.

The crew of the Chamberlain then got their largest lifeboat into the water; the

REST OF THE MEN GOT INTO HER,

picked up the small lifeboat, and transferred part of the crew into her. Just as they got clear of the steamer she sunk to her masthead.

The smallest of the lifeboats went back and get the steamer's stern light, which was above water, put the light into the large lifeboat so that they could see the compass to steer by, and then in tow of the large boat they pulled for the shore, where they arrived at 1:15 p. m. and came ashore one and one-half miles north of North Point, and walked to this city. The steamer that collided with them, they think, is the John Pridgeon, Jr.

Captain Greenley, of the lost steambarge, refuses to be interviewed concerning the disaster, and also has forbidden the surviving members of the crew from talking about it. He says he does not know the names of the men who lost their lives. The unfortunates were the second engineer, a fireman, and three deckhands. The Chamberlain was struck on the port bow and was cut down to below the water line. The Chamberlain lies about three miles east of Sheboygan Point, in forty-two feet of water.

The Selah Chamberlain was the property of the Bradley estate of Cleveland, and was valued at about $60,000. The boat was built in Cleveland in 1874 and rebuilt in 1883. She was of 1,207 tons burden, and of A class, second grade of propellers. Her recent rebuild made her one of the staunchest, handsomest boats of the class on the lakes. At the time of the disaster she had the schooner Fayette Brown in tow, and was bound for Escanaba for iron ore.

THE PRIDGEON'S STORY.

MILWAUKEE, WIS., Oct. 14.—The John Pridgeon, Jr., the vessel that run down the Selah Chamberlain, arrived in this port this forenoon. The master, Captain D. N. Sherwood, was not on his vessel when a reporter boarded her, but First Mate Hodge and other members of the crew told what they knew of the disaster. The Pridgeon, it appears, was bound from Ogdensburg to Chicago and Milwaukee with a load of merchandise. After leaving the Foxes the boat encountered very thick weather, and in addition to the fog the wind was blowing a gale and the rain fell in torrents. The mate said that the night was one of the worst he ever experienced. The boat's whistle was regularly blown at intervals of about thirty seconds, and a good lookout was kept on the forward deck. When somewhere near Sheboygan, Captain Sherwood and his men

SUDDENLY HEARD A HORN

off the port quarter. The horn was evidently blown from the deck of the Chamberlain's tow, the schooner Fayette Brown, though the Pridgeon's crew were in ignorance of this fact at the time. The Pridgeon's wheel was quickly thrown to starboard in order to clear the direction from which the sound came, when almost instantly a headlight of a steamer was seen towering above the Pridgeon's bow. At this juncture the Pridgeon's stem crushed into the stranger's port bow. The Pridgeon's helm was thrown hard aport, and the two vessels parted in the darkness. This was the last seen of the ill-fated craft, which the Pridgeen's crew subsequently learned was the Selah Chamberlain. Her tow sheered around and knocked down the Pridgeon's bridge, which connects the texas with the main cabin, and other trifling damages were sustained by the shock. After the collision the Pridgeon's crew heard four quick, sharp blasts from the doomed craft's whistle and then all was silent. The disaster occurred at about 9 o'clock, and intense darkness prevailed. Captain Sherwood remained in the vicinity until 12:30 o'clock, and during the three hours and a half intervening he carefully searched for wreckage, with the hope of rescuing the crew. No trace of the steambarge or her consort could be found. Then

THE SEARCH WAS ABANDONED,

and the Pridgeon steamed for this port. Mate Hodge stated that the Pridgeon was running at a low rate of speed and had the wind dead against her, while the steambarge and her tow were running light under a favorable wind. The wind was blowing fresh from the south southeast. He was positive that both vessels had their foresails up, and believes that they were going at quite a high rate of speed.

The Pridgeon had a large hole stove in the starboard and both sides of her "quickwork" but her hull was uninjured. The fact that she is a much heavier and newer boat than the Chamberlain accounts for her escape from more serious damage.

The Pridgeon's crew maintain that the accident was unavoidable, and that no blame can be attached to either commander. As the Pridgeon's cargo was not damaged in the least, Captain Sherwood deemed it unnecessary to file a protest here. The captain called at R. P. Fitzgerald & Co.'s office this afternoon, and related the particulars of the collision. His account corroborated in detail the statements made by his crew.

The "quickwork" on both bows of the Pridgeon is badly crushed in, but her hull is uninjured.

Members of the Pridgeon's crew saw the Chamberlain's consort, the Fayette Brown, drift off in the darkness after the collision. Her jibboom raked the sides of the Pridgeon's cabin as she drifted by.

When the news reached Chicago at noon yesterday it caused no little surprise. Both vessels are well known among those engaged in marine interests, both were considered the best in their respective classes. The first announcement of the disaster stated that one of the New York Central line boats had done the running down, and vessel men at once put their heads together and attempted, by scanning the port lists, to ascertain which of these lake monsters it could have been. Subsequent advices placed the responsibility on the Pridgeon. This propeller has a registered tonnage, of 1,212, just five tons more than the vessel she run down. Both boats have the same rating in the Lloyds—A 2—and both are valued at $60,000. The Pridgeon was built in 1875 by Clark, of Detroit, where she was also owned by John Pridgeon, Sr. Her stem was protected by iron nearly four inches in thickness. This would cut a vessel nearly in two under a square contract. Vessel owners agree that the reticence of Captain Greenlee and the surviving crew of Chamberlain, on their arrival at Milwaukee, means a big lawsuit against the present owners of the Pridgeon. She was formerly an Anchor line boat, plying between Chicago and Buffalo, but lately she came into the hands of the Vermont Central line, and made trips between Chicago and way ports and Ogdensburg. As the owners of the ill-fated propeller were opposed to marine insurance on principle, she will, of course, prove a total loss.

A GENUINE YANKEE TRICK.

In the early days of our commerce with China, after the treaty which allowed American clippers to enter the harbor of Hong Kong, one of the largest English three deckers was lying in the harbor, and at sunset her yards and topmasts were housed to show the manner in which the ship was manned. A Yankee captain who was awaiting a freight of new tea, watched the Englishman and decided to try his hand with him. Two or three days later, at the sunset gun, the American clipper's yards and sails came down and topmasts housed some minutes before the man-of-war. Again in the morning, at the signal the yards were sent up and the Englishman was again behind. For several days the race went on, with the same result, until the American ship received her cargo, and on the day before setting sail the yards came down and were sent to the English frigate with the compliments of the Yankee captain. They were bamboo poles with painted (furled) sails.—*New London Telegraph.*

Scott's New Coast Pilot
IS SOLD by
SHIP CHANDLERS
AND BY THE PUBLISHER.
GEORGE SCOTT,
AT 162 LARNED ST., E., DETROIT, MICH

M. T. COUGHLIN,
MANUFACTURER OF AND DEALER IN
Oils & Engineers' Supplies
AND
COUGHLIN'S CHALLENGE COMPOUND,
TO REMOVE AND PREVENT INCRUSTATION IN STEAM BOILERS, WHICH IT IS GUARANTEED TO DO.
49 North Market-st., Chicago.

FOR SALE,
A POWERFUL RIVER AND HARBOR TUG.
Built for wrecking purposes. Length 87 feet, breadth 17 feet, depth 9 feet, draws 9 feet. New tonnage 40, old 81. Engine 22x24. She is allowed 90 pounds of steam. Has new main valve, new throttle valve, new eccentrics, two new tow posts, four new timber heads, one new metallic life boat and new wheel, ironed all around for work in ice. Cabin, pilot house and engine room remodeled. Can carry sixty (60) tons fuel, has forty life preservers, water-tight bulkheads, and is allowed to carry passengers. She rates A2, valued in Lloyd's at $10.000, and is warranted in first-class shape. Address MARINE RECORD OFFICE,
Cleveland, Ohio.

SAMUEL F. HODGE & CO.,

MANUFACTURERS OF

MARINE,

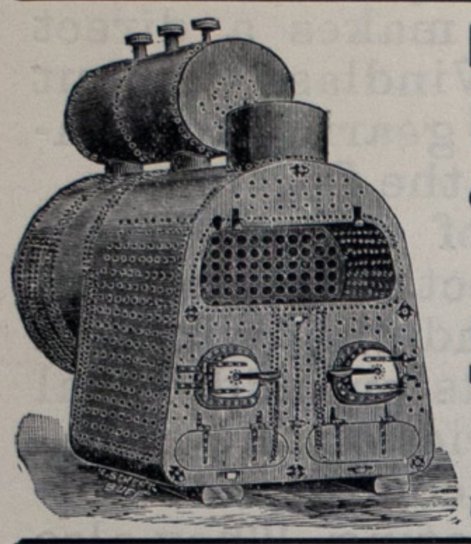
Stationary & Portable Engines,

MINING MACHINERY AND

PROPELLER WHEELS,

Riverside Iron Works, 314 to 326 Atwater Street.

DETROIT, MICH.



EAGLE BOILER WORKS,

M. RITER, Prop'r,

Cor. Indiana & Mary St.,

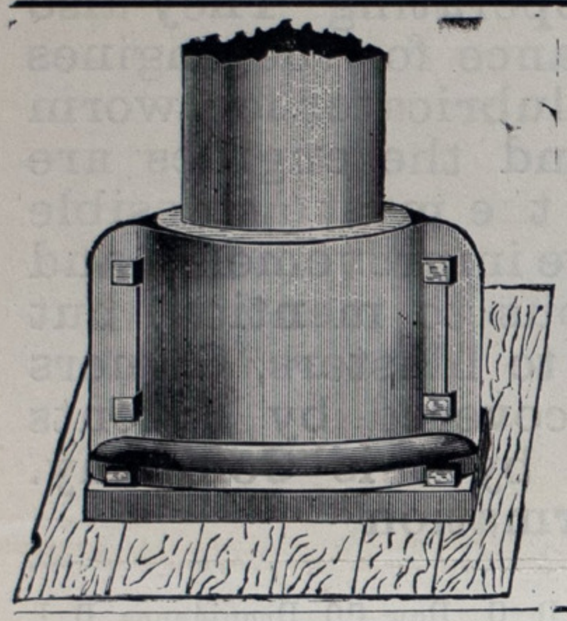
BUFFALO, N. Y.

MANUFACTURER OF

High and Low Pressure

Marine, Stationary, Portable, Locomotive and Upright Boilers; also, Salt Pans, Smoke Pipes and Heavy and Light Plate Iron Work of all Descriptions.

REPAIRS PROMPTLY ATTENDED TO.



C. A. RICHARDSON'S

Rudder Holder

AND

SUPPORT.

A Practical and Invaluable Invention,

Patented May, 1884

Whole or Half of Right for Sale.

C. A. RICHARDSON, Alpena, Mich.

ST. MARY'S, OHIO. MONTPELIER, OHIO. } OAR MILLS. NEPTUNE ANCHOR WORKS.

DE GRAUW, AYMAR & CO.,

MANUFACTURERS AND IMPORTERS OF

CORDAGE, OAKUM, WIRE ROPE,

Chains, Anchors, Oars, Blocks,

RUSSIA BOLT-ROPE,

Flags, Buntings, Cotton and Flax Ducks,

MARINE HARDWARE, SHIP CHANDLERS' GOODS GENERALLY.

34 and 35 South-st, New York.

TELEPHONE 1447. ESTABLISHED IN 1854

JAMES MAGNER & CO.,

PROVISION DEALERS,

The Vessel Trade a Specialty.

227, 229 & 231 Dearborn & 30 & 32 Quincy-st

OPPOSITE CUSTOM HOUSE,

CHICAGO, ILL

JAMES MAGNER. R. Z. WINSLOW.

SEND FOR MARINE LAWBOOK

PRICE ONE DOLLAR

CRESCENT SHIP GREASE

Is especially prepared for MARINE use. It is far superior to tallow for slushing down spars, and can be applied without heating; gives them a fine, glossy appearance; is better than oil for lubricating Windlasses, Steering-gear, etc.

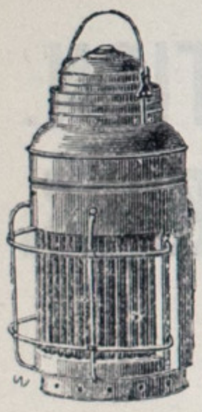
For Sale by Ship-chandlers Generally.

Manufactured by CRESCENT MANUFACTURING CO., 3 and 5 Michigan St., Cleveland, O.

SIGNAL LAMPS

For Steamers and Sailing Vessels.

PATENT FLUTED LENS AND PERFECT COLORS.



GET THE BEST AND AVOID COLLISIONS.

These Lamps give a more brillant light than any Signal Lamp now in use.

They have been adopted by the principal Ocean and Lake Steamers

Over Ten Thousand Now in Use.

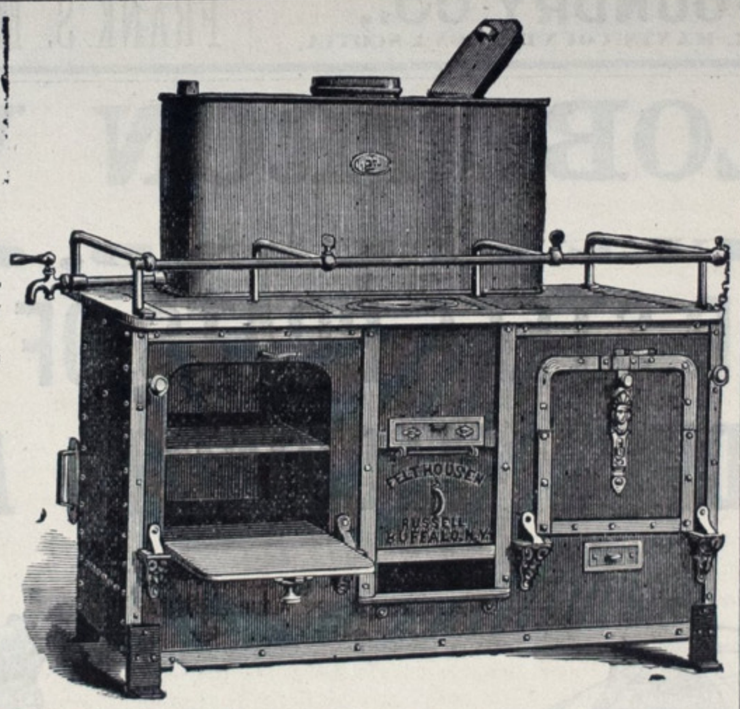
WE ALSO MANUFACTURE THE CELEBRATED

French Wrought Iron Ranges and Broilers of all Sizes for Steamers and Hotels.

Steamboat Copper, Tin, and Sheet Iron Workers

FELTHOUSEN & RUSSELL,

139 & 141 MAIN ST., BUFFALO, N. Y.



D. S. AUSTIN. EMMET AUSTIN.

D.S. AUSTIN & CO.

Ship Chandlers & Sail Makers.

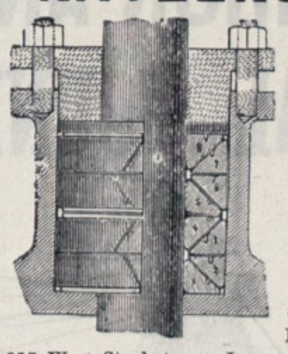
WHOLESALE AND RETAIL DEALERS IN

Cotton Duck, Cordage, Wire Rigging, Oakum, Pitch, Tar, Paints. Oils, Etc.

Vessels' and Steamers' Complete Outfits Furnished on Short Notice.

FOOT OF WASHINGTON STREET, BUFFALO, N. Y.

KATZENSTEIN'S



SELF-ACTING METAL PACKING

FOR PISTON RODS, VALVE STEMS, Etc.

Adopted and in use by the principal Iron Works and Steamship Companies within the last eight years in this and Foreign countries. Also flexible tubular metallic packing for slip-joints on steam pipes and for hydraulic pressure. For full particulars and references address

L KATZENSTEIN & CO

357 West St., between Leroy and Clarkson-st, N. Y.

CAPT. THOS. WILSON, who uses this packing on his Steamers, and THE MARINE RECORD are Agents for Cleveland and the Lakes.

O. & P. COAL CO. & THOS. AXWORTHY.

FUEL DEPARTMENT.

PRESLEY, ARTHUR & CO., AG'TS.

Steamboats, Tugs, etc, Coaled Day and Night.

DEALERS IN LACKAWANNA ANTHRACITE COAL.

Docks: Ft. West River St., Whisky Island, C. P. R'y. Slip, Government Pier

OFFICE 130 RIVER-ST., CLEVELAND, OHIO.

RUELLE & CO'S TUG LINE.

TUGS:

J. L. MINER, C. D. McKINNON, QUICKSTEP.

RIVER AND HARBOR TOWING,

STEAM PUMPS AND LIGHTERS.

WRECKING A SPECIALTY.

UP RIVER OFFICE, Belle Isle Ice Co.'s Dock. Telephone No. 199—3 rings

DOWN TOWN OFFICE, J. W. Westcott's foot of Woodward Ave. Telephone No. 55.

DETROIT.

ROBERT E. HILLS,

57 & 59 North Wells St., Chicago, Ill.
Telephone 3321.

STEAM FITTING AND HEATING,

Wrought Iron Pipe & Fittings.

ENGINEER'S SUPPLIES.

General Jobbing Work Done Promptly.

Also, Proprietor of North Side Brass Works.

PENFIELD BLOCK Co.,

Lockport, N. Y.

"Anchor" Snatch Block, No. 511.

ANCHOR BRAND TAKLEC BLOCKS,

Store and Warehouse Trucks.

ALL STEEL ROLLER BUSHINGS,

Phosphor Bronze Self-Lublicating Bushings.

GOODS FOR SALE BY PROMINENT DEALERS EVERYWHERE.

Ask for Anchor Brand Blocks.

Illustrated Catalogue and Price List Mailed on Application.

Single Inside Iron Strapped, No. 7

WARD & JACKSON,

SHIPSMITHS.

All Kind of Forgings, Bolts and Truss Rods for Building.

49 Main-st Cleveland

GEORGE SAAL'S SON.

Copper-smithing of all Kinds.

VESSEL WORK A SPECIALTY.

403 and 405 Detroit-st., corner Duane-st., Telephone 1638. CLEVELAND, O.

WANTED An active Man or Woman in every county to sell our goods. Salary $75 per month and expenses. Canvassing outfit and particulars FREE. STANARD SILVER-WARE CO., Boston, Mass.

DAVID BARNHISEL, Agent.

DOMESTIC & STEAM COAL

Cleveland. Ohio

WM. H. RADCLIFFE,

Shipbuilder and General Repairing.

OLD RIVER BED, Ft. OF TAYLOR St.,

CLEVELAND, O.

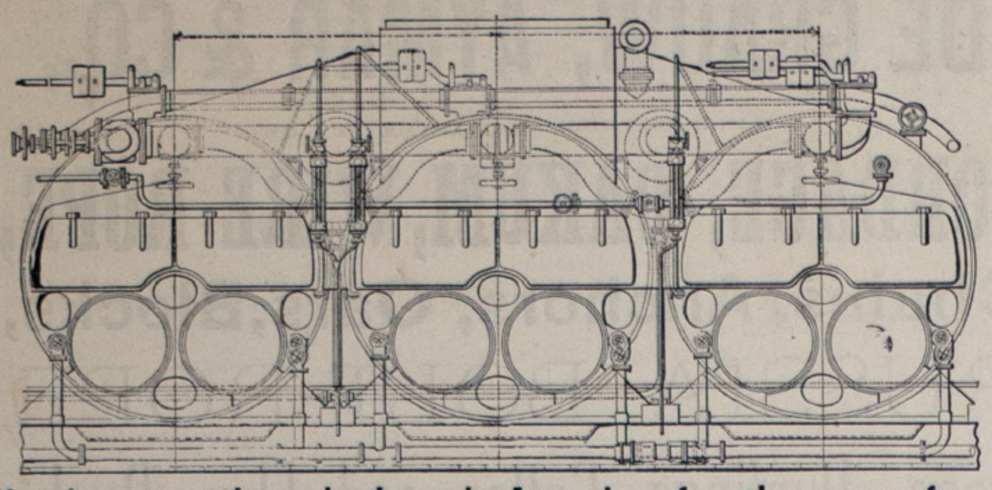
PRESLEY & CO.,

Globe Drydock

Shipbuilding, Drydocking, Repairing and Spar Making.

CLEVELAND, OHIO.

LAKE ERIE BOILER WORKS.



The best equipped plant in America for the manufacture of Modern Marine Engines

BUFFALO, NEW YORK.

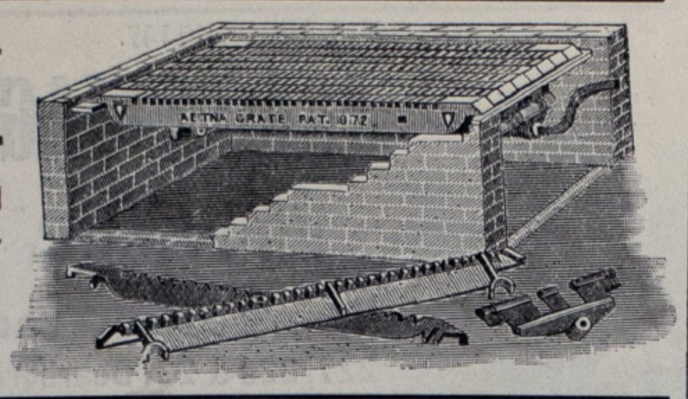
THE ÆTNA GRATE.

G. C. BARNES, Agt.

This Improved Shaking Grate Especially Adapted to Burning Slack.

Globe Iron Works, Manufac's.,

Office and Foundry, corner of Elm and Spruce-sts., CLEVELAND, O.



"THE PROVIDENCE"

WINDLASSES, CAPSTANS, ETC.,

IN CANADA.

THE WINDSOR FOUNDRY Co

Have made arrangements with the American Ship Windlass Co. to build their Celebrated Machinery, with latest improvements for use on Ship-board for Canada.

FOR PRICES, PLANS AND ALL OTHER INFORMATION APPLY TO

THE WINDSOR FOUNDRY CO.,

WINDSOR, HANTS COUNTY, NOVA SCOTIA.

Established in 1857.

AMERICAN SHIP WINDLASS CO.,

Builders of Steam, Messenger Chain and Hand Windlasses, Power, Crank and Steam Capstans, Wharf and Ferry Drops. Their Capstan Windlasses have a Power Capstan with a single head which has power and speed arrangement entirely independent of the Windlass, and which makes a direct connection with the Windlass without the intervention of any gearing to complicate it and inc ease the friction.

In all their styles of Steam Windlasses they make a direct connection between the engines and the windlass without counter shafts or additional gearing. This saves friction and liability to break down, and conduces to durability and ease in operating. They also have a counterbalance for the engines and an automatic lubricator for worm and worm gear, and the engines are placed together in the most accessible position. The above improvements and others too numerous to mention, but which are familiar to Masters, Owners and Builders, are covered by Patents owned exclusively by this Company. For plans and information,

Address,

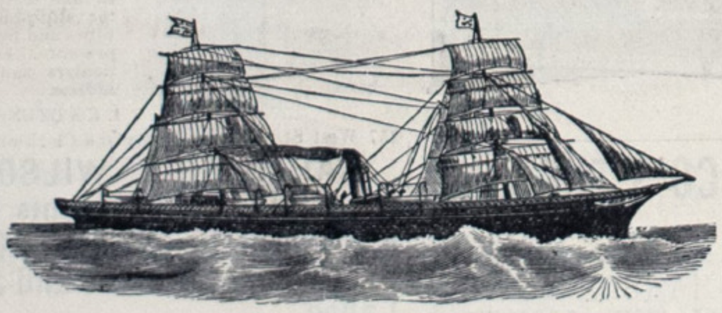
FRANK S. MANTON, Agent. P. O. Box 53, Providence, R. I.

THE GLOBE IRON WORKS CO.,

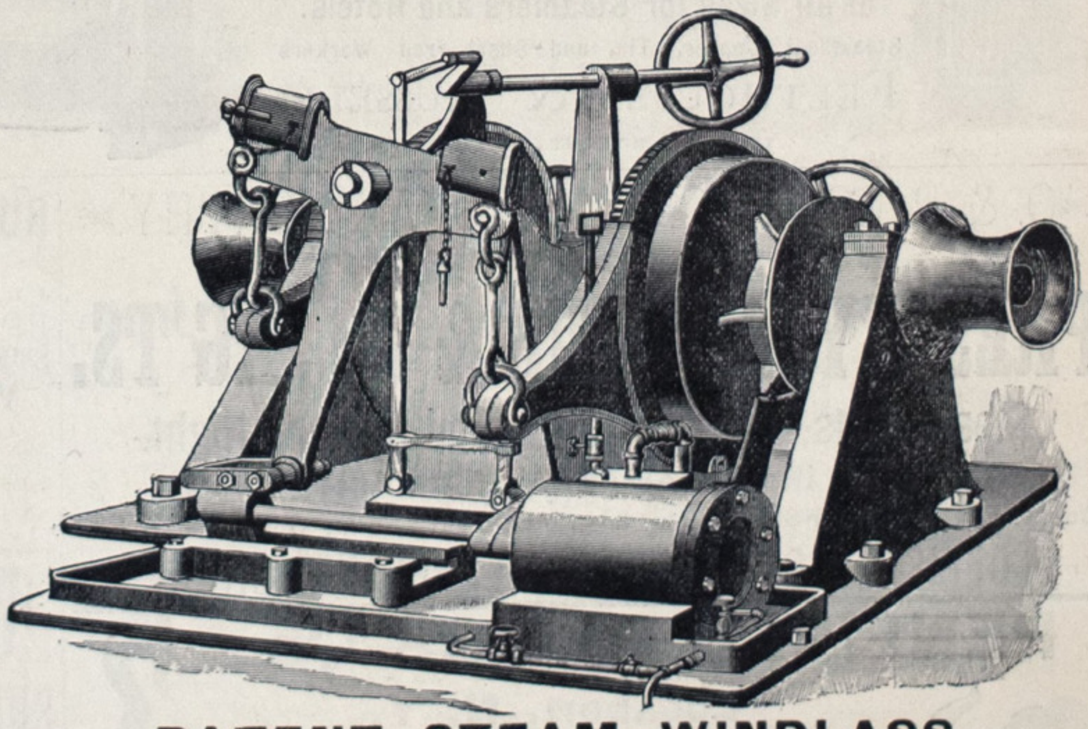
CLEVELAND, OHIO.

BUILD IRON AND STEEL BOATS OF EVERY DESCRIPTION.

GENERAL FOUNDERS, MACHINISTS AND BOILER-MAKERS.



Builders of Iron Steamers Onoko, Wm. Chisholm, J. H Devereux, Passenger Steamer Darius Cole, Steamyacht Twilight, Iron Tugs International and Record, and steel steamer Spokane.



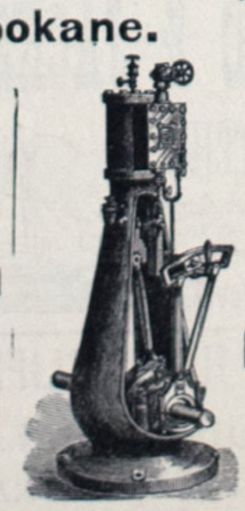
PATENT STEAM WINDLASS.

HAND AND SPOOL WINDLASS,

AMAZEEN BEAM LOG WINDLASS,

Centerboard, Mast, Gipsey, Hatch Winches,

Water Seal Stove Pipes, Chocks, Coal Scuttles, Hawse Pipes Cleats.



Compound

MARINE & STATIONARY

ENGINES.

MARINE AND STATIONARY

BOILERS,

SMOKE STACKS,

General Plate and Sheet Iron Work

ENGINES FROM FOUR TO FORTY H. P. KEPT ON HAND.